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IDENTIFIERS	Dental Equipment; *Health Instruction Exchange; Periodontics

ABSTRACT

These five learning modules use text interspersed with illustrations and reinforcement exercises to instruct dental aide and dental hygiene students about jaw bones and gums, dental deposits, and dental instruments. The first four modules were prepared by Patricia Lind in both Spanish and English. "The Gum and Bone of Permanent Teeth" ("La Encia y el Hueso de los Dientes Permanentes") teaches about the different parts of the gum and their functions, how the bone supports the teeth, and how to distinguish between healthy and unhealthy gums and bone. "Dental Deposits" ("Depositos Dentales") teaches the learner about food, plaque, tartar, and stain deposits. "Dental Instruments for Examining the Teeth" ("Instrumentos Dentales para Examinar los Dientes") describes the dental mirror, explorer, and probe and how these instruments are used in an oral examination. The third module, "Sharpening Dental Instruments" ("Como Afilar los Instrumentos Dentales") underscores the importance of sharpening instruments and shows how to check and sharpen the spoon, spade, hoe, and file. The final module, "Basic Principles of Instrument Sharpening Using Chisels and Spoons" by Catherine Germano, lists the advantages of sharp instruments, identifies the different instrument parts, compares dull and sharp instruments, states the principle objective of sharpening techniques and the method by which an instrument is applied to the sharpening stone, and teaches the student the correct way to achieve a sharp edge. Each module concludes with a post-test and accompanying answer key. (AYC)

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HEALTH INSTRUCTION PACKAGES:

PERMANENT TEETH,
DENTAL DEPOSITS,
AND DENTAL INSTRUMENTS

Dientes Permanentes,
Depositos Dentales y
Instrumentos Dentales

Modules prepared by:
Patricia Lind
& Catherine Germano, RDH

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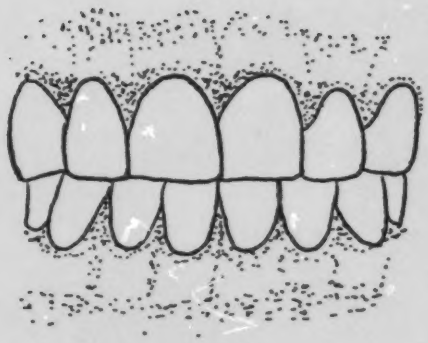
A PROJECT OF THE LEAGUE FOR INNOVATION IN THE COMMUNITY COLLEGE

THE GUM AND BONE OF THE PERMANENT TEETH

by

Patricia Lind



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TITLE OF PACKAGE:	Gum and Bone of the Permanent Teeth
AUTHOR:	Patricia Lind
INSITUTION:	Foothill College, Los Altos, Calif.
INTENDED STUDENT:	Dental aide (6th grade educational level)
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	Picture of healthy gums (labeled #1); Picture of unhealthy gums (labeled #2); dental mirror

FIELD TEST COPY

Originally written for Guatemalan dental aide students (6th grade reading level), this unit is also available in a Spanish version.

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WELCOME TO LESSON

THREE!

In the first two lessons we learned about the anatomy of the tooth. We talked about small (incisor) teeth, medium (pre molar) teeth, big (molar) teeth, and we also talked about the root anatomy.

In this lesson we are going to learn about the parts of the mouth that hold the teeth in place. These are the gums and the bone. When you complete this lesson, you will have learned about:

1. The different parts of the gum and how they support the tooth;
2. How to tell the difference between healthy and unhealthy gums;
3. How the bone supports the tooth;
4. How to tell the difference between healthy and unhealthy bone.

REMEMBER---the role of a dental hygienist is to help keep the teeth and mouth healthy. Therefore, knowing about the gums and bone is very IMPORTANT!

Let us start with the GUMS.

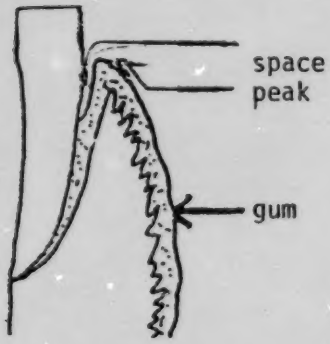
The GUM is the soft tissue that surrounds your tooth. It supports your tooth.

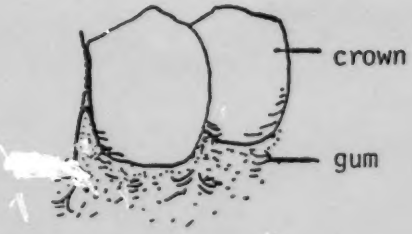
Just like the skin supports the fingernail.

LOOK AT THE PARTS OF YOUR GUMS!

Check this square

Square cut in 1/2





Space: is an opening between the tooth and gum

Gum: is like a soft band of tissue that goes around the tooth

Peak: is the pointed piece of tissue that fits between the teeth

Let's see if you can remember the parts of the gum!

1. a. Label them

Tell me . . .

b. What is the name of the point of gum that fits between the teeth?

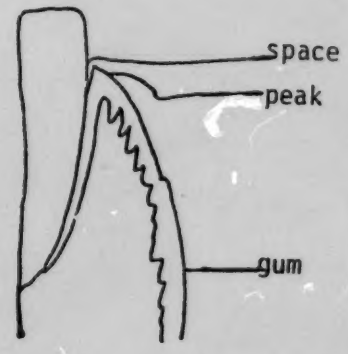
_____

If you understand this, let's find out what healthy and unhealthy gums look like (see next page).

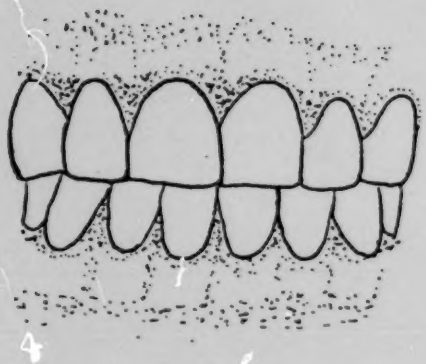
Is your drawing labeled like this?

Great!

If not, check page 2.

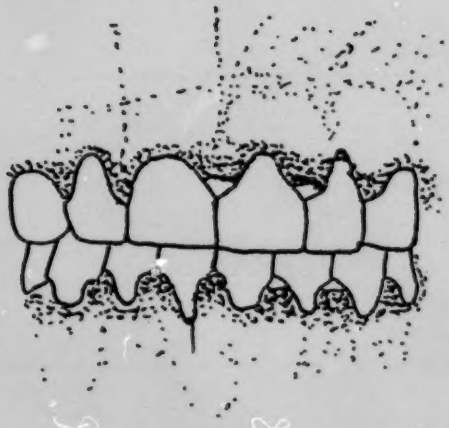


The name of the point of gum between the teeth is peak.



Healthy GUMS:

1. are pink, not red
2. are tight to the tooth
3. are spaced short and narrow
4. do not bleed easily



Unhealthy GUMS:

1. are red
2. are swollen, moving away from the crown
3. have flattened peaks
4. are spaced wide and deep
5. bleed easily

Unhealthy gums can have any or all of these changes to be unhealthy.

Now, let us check and see how you are doing!

Take pictures One and Two from the packet.

2. Which picture has the unhealthy gums?

One or Two (circle the correct answer)

(Check answer on page 7)

Take the mirror out of the packet.

Do you have healthy or unhealthy gums? _____

If unhealthy, tell me where: _____

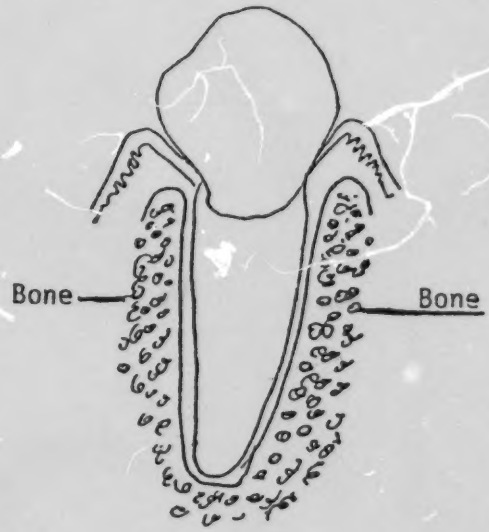
_____

_____

You answered Question 2 correctly if you circled Two.

The bone also supports the tooth and holds the tooth in your mouth. You cannot see the bone because it is under the gums.

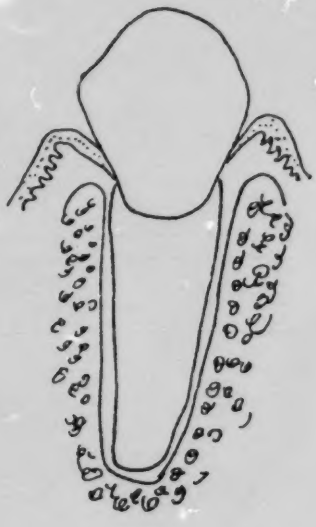
Put your finger on your gum right below your tooth. The hard part you feel is the bone.



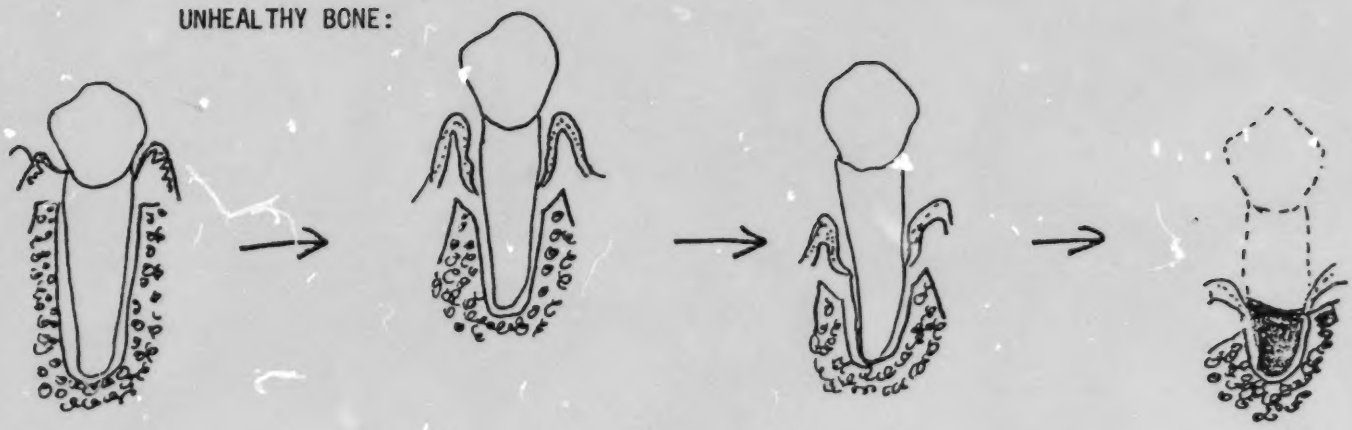
It is important for the bone to be healthy. If it is not healthy, it gets weak and the tooth will get loose and fall out of the mouth.

Let me show you how it happens-----

Here is a HEALTHY BONE:



UNHEALTHY BONE:



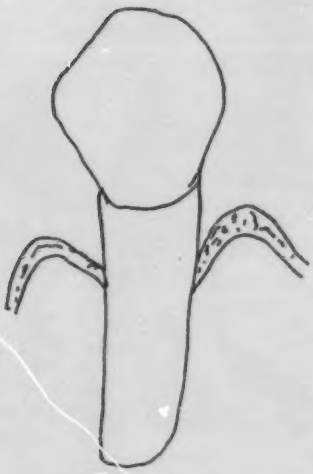
In each picture the bone is getting smaller and smaller and soon the tooth begins to loosen and the tooth falls out. NOTICE the gum also gets smaller and smaller.

In the next lesson we will learn <u>WHY</u> this happens!

Show me what you have learned:

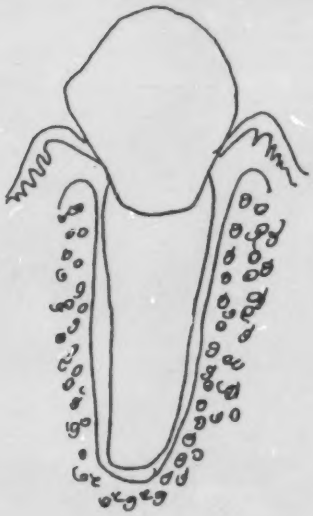
3a. In this picture, draw a healthy bone:

3b. In this picture, draw an unhealthy bone:

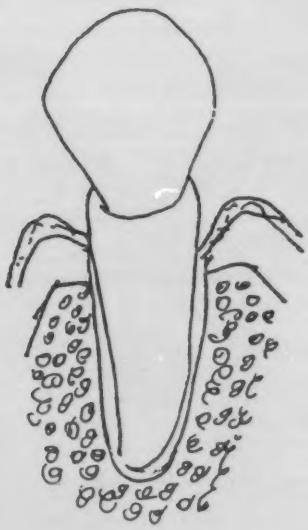


Here are the answers:

Healthy Bone



Unhealthy Bone



Understand? I hope so.

POST-TEST

Now, to review the entire lesson. Choose the best answer:

1. Normal gums are:

   a. swollen, moving away from the crowns

   b. red

   c. pink, not red

   d. bleeding

2. Is the gum in this drawing healthy or unhealthy:_____

3. Why is it important to have healthy bone?_____

   _____

   _____

4. Why is it important to have the gum surround the tooth?_____

   _____

   _____

11.

POST-TEST ANSWER KEY

The answers are:

1. C
2. Healthy gum
3. So the tooth will have something to hold it in the mouth.
4. So the tooth will have something to hold it in the mouth.

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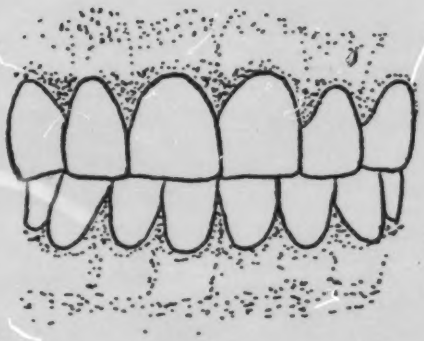
LA ENCIA Y EL HUESO DE LOS DIENTES PERMANENTES

Por

Patricia Lind



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TÓPICO:	Huesos y encías de los dientes permanentes
NOMBRE DE LA INSTRUCTORA:	Señora Patricia Lind
INSTITUCION:	Foothill College
CLASE O CURSO:	Huesos, dientes y encias (Para estudiantes guatemaltecos que hayan cursado 6º grado.)
TIEMPO CALCULADO:	15 minutos
MATERIAL QUE SE NECESITA:	1 dibujo de encías sanas; 1 dibujo de encías enfermas; 1 espejo, plástico dental
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BIEN VENIDOS A LA LECCION 3!

En las primeras dos lecciones aprendimos acerca de la Anatomía de los dientes. Hablamos de los dientes pequeños (incisivos), medianos (premolares), dientes grandes (muelas) y también hablamos acerca de la Anatomía de la raíz.

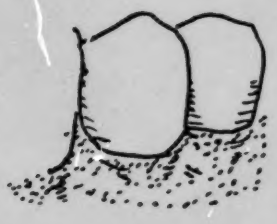
En esta lección vamos a aprender acerca de las partes de la boca que sostiene los dientes en su lugar. Estas son las encías y el hueso. Cuando Ud. termine esta lección Ud. apprenderá acerca de:

1. Las diferentes partes de las encías y cómo sostiene al diente;
2. Cómo decir la diferencia entre las encías sanas y malas;
3. Cómo el hueso sostiene los dientes;
4. Cóme decir la diferencia entre un diente sano y uno malo.

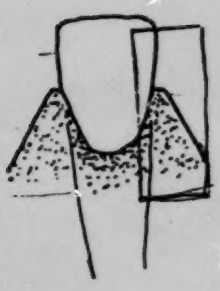
Recuerde: El papel de la Higenista dental es ayudar a mantener los dientes y la boca sana. Por eso saber acerca de las encías y el hueso es muy importante.

Vamos a empezar con las ENCIAS.

La ENCIA es la membrana suave que rodea el diente.
Sostiene su diente.

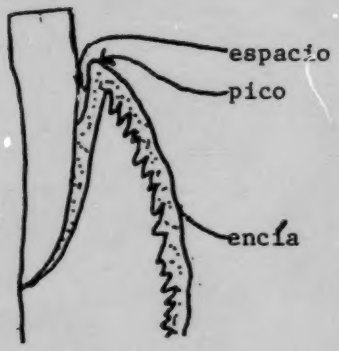


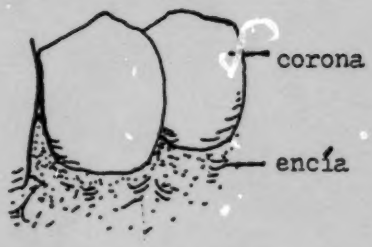
Asi como la piel sostiene las unas.



Observe este cuadro

Cuadro cortado en 1/2.





Espacio: es la abertura entre el diente y la encía.

Encía: es como una banda suave que esta alrededor del diente.

Pico: es la parte de la encía que entra entre el diente. Es puntudo.

Veamos si Ud. puede recordar las partes de la encía.

Ponga los nombres:

Dígame:

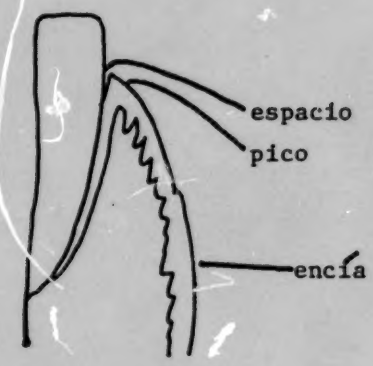
¿Cuál es el nombre de la parte de la encía que entra entre el diente?

Si Ud. entiende esto, vamos a ver como se mira una encía sana y una mala (vea la siguiente página).

¿Si su dibujo está marcado así?

¡Maravilloso!

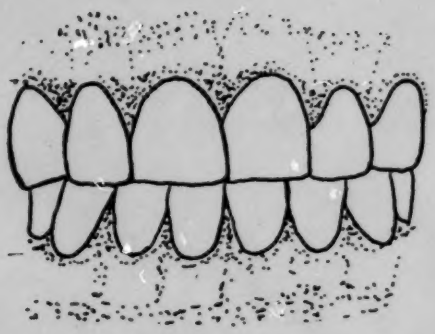
Si nó, vea la Pagina 2.



El nombre de la parte de la encía entre el diente es <u>pico</u>.

Las ENCIAS sanas son:

1. rosadas, no rojas
2. firmes al diente
3. es espacio es pequeño y ancho



Las ENCIAS malas son:

1. rojas
2. hinchadas, se mueven fuera de la corona
3. el pico es aplanado
4. el espacio es ancho y profundo
5. sangran facilmente

Las encías enfermas pueden tener uno o todos los cambios para ser enfermas.

Vamos a ver cómo va!

Tome el cuadro uno y dos del paquete.

¿Cuál cuadro tiene la encía mala?

¿Uno o Dos?(Circula la respuesta correcta.)

(Vea la respuesta en la Pagina 7.)

Tome el espejo de la bolsa.

¿Tiene Ud. sanas o malas encías?_____

Si es mala, dígame donde _____

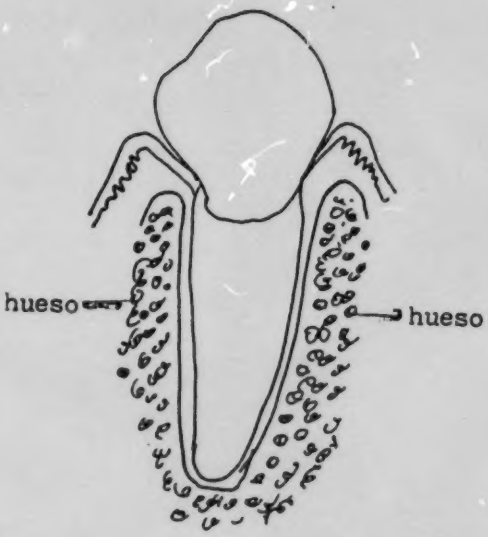
_____

_____

El Hueso

El hueso también sostiene el diente y lo mantiene en su boca. Ud. no puede ver el hueso porque esta adentro de las encías.

Ponga su dedo sobre la encía derecha debajo de su diente. La parta dura que siente es el hueso.

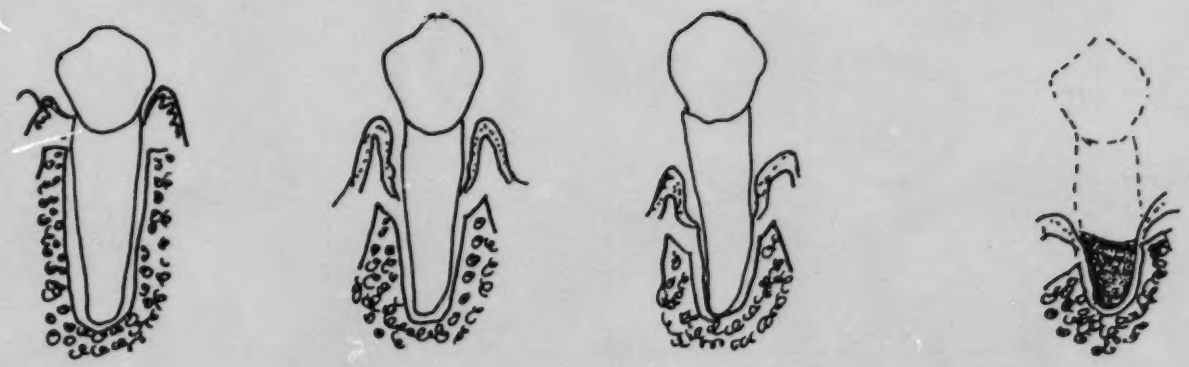


Es importante que el hueso sea sano. Si no es sano, se debilita y el diente se afloja y se cae de la boca.

Les ensenare como pasa esto---------

Aquí vemos a un hueso sano y uno enfermo:

Hueso enfermo o malo



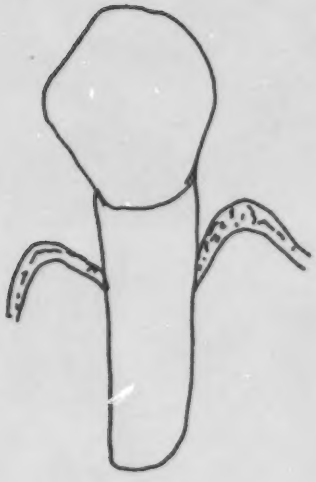
En cada figura el hueso se va poniendo más pequeño, pronto el diente se afloja, hasta que el diente se cae. Nota que la encía tambien se va poniendo más pequeña cada vez.

En la próxima lección nosotros aprenderemos porqué pasa esto!

Enseñenme lo que han aprendido:

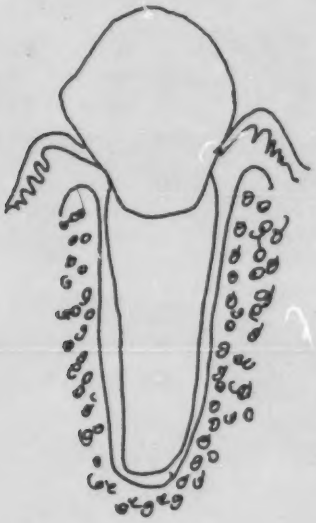
En esta figura, dibuje un hueso sano:

En esta figura, dibuje un hueso enfermo:

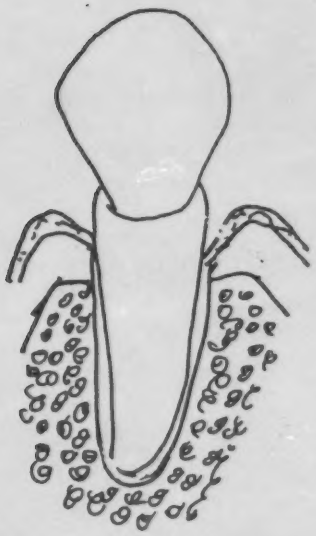


Aquí están las respuestas:

Hueso sano



Hueso enfermo



¿ Entendieron? Espero que sí.

Ahora, para repasar toda la lección: Escoja la mejor respuesta:

1. La encía normal es:

   a. cuando se hincha y se mueve de la corona

   b. roja

   c. rosada, no roja

   d. cuando sangra

2. ¿ Es la encía en este dibujo sana o enferma?

3. ¿ Porqué es importante tener el hueso sano?

4. ¿ Porqué es importante tener la encía rodeando al diente?

Las respuestas son:

1. C
2. Encías sanas.
3. El diente tendrá en que sostenerse dentro de la boca.
4. El diente tendrá con que sostenerse en la boca.

Si Ud. entendió la lección No. 3, pasaremos a la siguiente o sea la lección No. 4.

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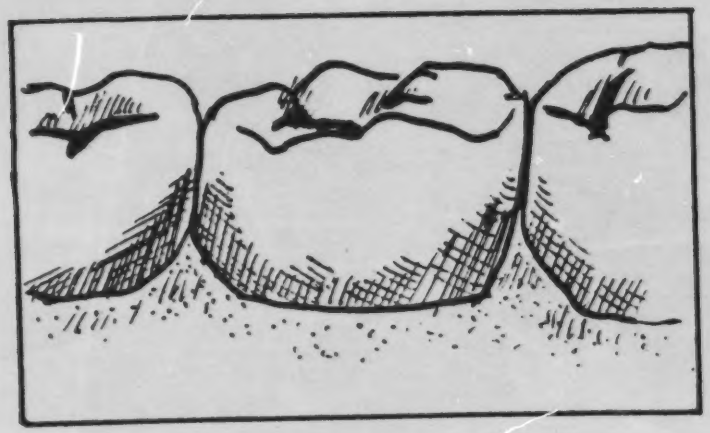
DENTAL DEPOSITS

by

Patricia Lind



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TITLE OF PACKAGE:	Dental Deposits
AUTHOR:	Patricia Lind
INSTITUTION:	Foothill College, Los Altos, Calif.
INTENDED STUDENTS:	Dental aides (6th grade reading level); consumers
ESTIMATED WORKING TIME:	20 minutes
MATERIALS NEEDED:	Packet 1: Disclosing tablets (2) and a mirror. Packet 2: Pictures of teeth - one disclosed set, one not disclosed. Packet 3: Pictures of teeth - one with tartar, one without tartar.
REVISED:	Oct. 1, 1977

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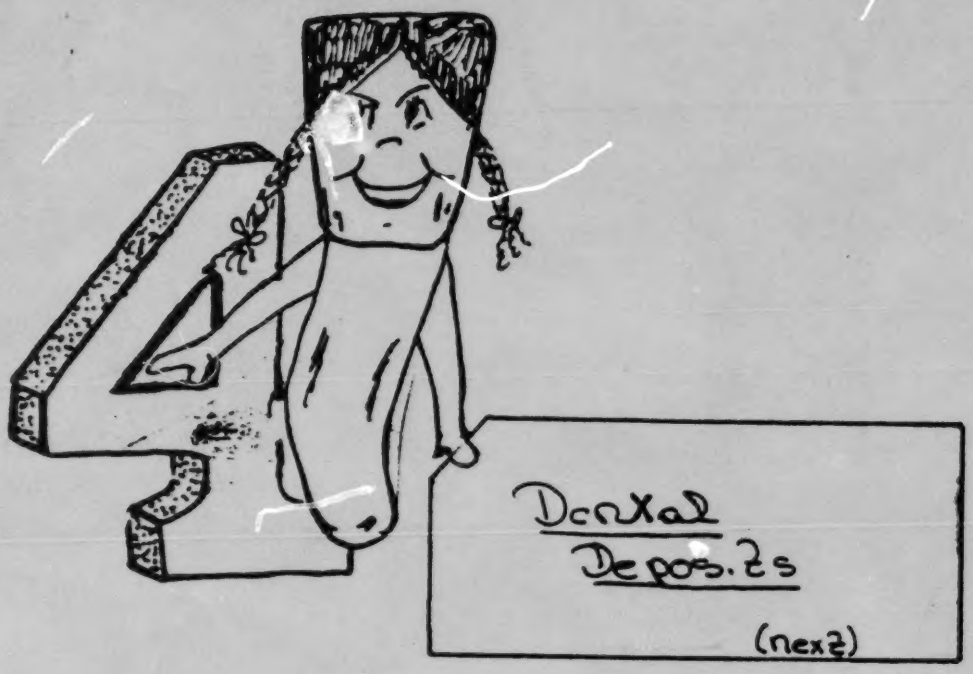


We are one-half way through our lessons now!

This is a very important lesson because we will be talking about dental deposits. These deposits form on the teeth. As I said in the last lesson, the role of a dental hygienist is to help people keep their mouths healthy. We do this by cleaning off all the dental deposits.

We will find out all about dental deposits in this lesson. The dental deposits we will talk about are:

Food deposits

Plaque deposits

Tartar deposits and

Stain deposits

Here we go-----

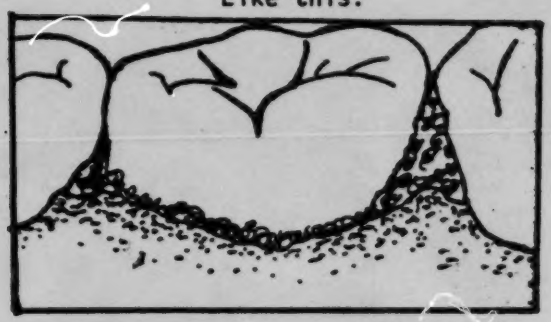
1.

FOOD DEPOSITS

Food deposits are something we already know about.

I'm sure, at times, you have eaten food, especially sticky foods, and then felt the foods between or on your teeth:

Like this:



Food deposits make our mouth taste bad and make our teeth look unattractive.

Check your teeth now with your tongue. Do you feel any foods stuck between your teeth or on your teeth? The toothbrush can clean off these deposits.

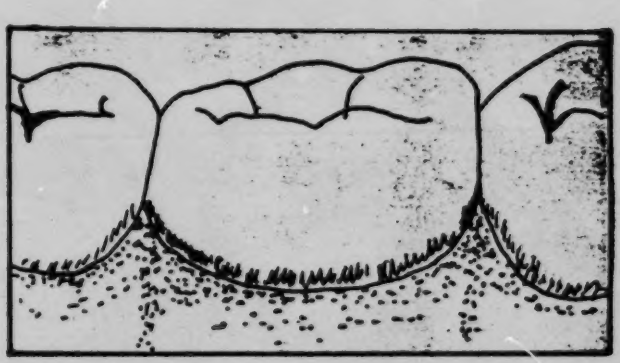
Since you already know about food deposits, let's find out about a dental deposit that may be new to you.

Turn to the next page and find out!

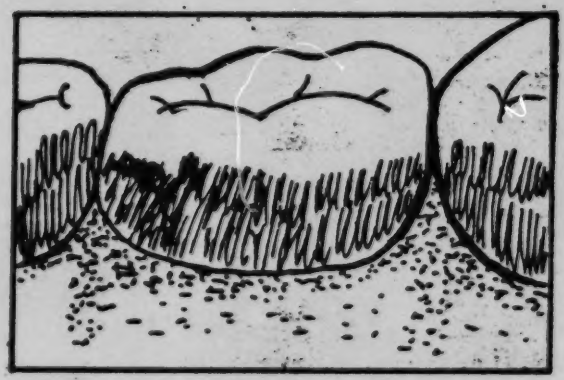
PLAQUE

PLAQUE is a bumpy, slippery film made of saliva and naturally forms on the teeth in a few minutes after brushing. It grows on our teeth whether or not we eat any foods. Plaque can be removed with a tooth brush.

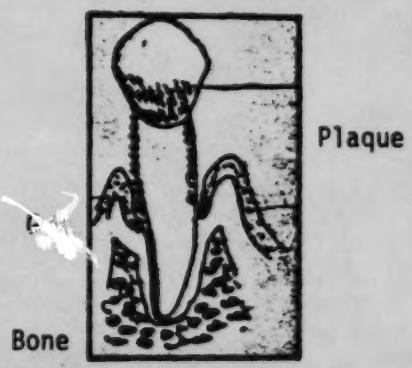
It forms around the gums and on the teeth and in the space in between the teeth.



When it stays on the tooth for an entire day, it grows up toward the chewing side. It also gets thicker because bacteria get into the PLAQUE.



When the BACTERIA get into the plaque, the bacteria irritates the gums and bone and makes them both unhealthy.



REMEMBER?

3.

Do you remember?

Answer these questions:

1. On these teeth draw where the plaque first forms.

2. What two things does the bacteria in the plaque cause?

   1) _____

   2) _____

3. Look in Packet 1.

   Take out a tablet and the mirror. Chew the tablet for one minute and then spit it out. Now look in the mirror. Are there any pink spots on your teeth? You have just found plaque! As I have said before, plaque forms on your teeth everyday.

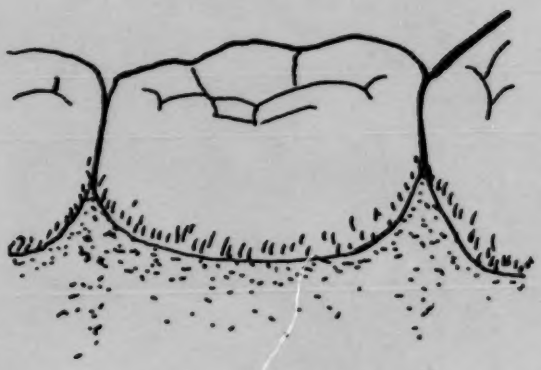
   Now look in Packet 2.

   Take out the pictures. Are your own teeth like picture "a" or picture "b"?

   _____

Here are the answers:

1. This is where the plaque first forms. Right?



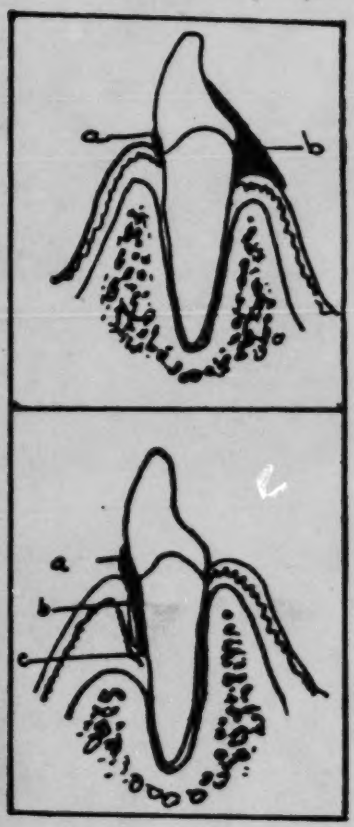
2. The two things bacteria in the plaque causes are:
   1) unhealthy gums
   2) unhealthy bone

3. Tell me, were your teeth like picture "a" or "b"? Circle the correct answer.

TARTAR

The next dental deposit is TARTAR.

TARTAR is plaque that has hardened. It feels rough and hard.



1. Tartar Forms
   a. Above the gums of the teeth
   b. Over the crown and on the root about the gums

AND

   a. above gums
   b. on root under gums and goes
   c. to the bottom of the SPACE

There is always a layer of the PLAQUE on the TARTAR. Therefore, it is very important that we remove the tartar so we won't get unhealthy gums and bone.

NOTICE: The tartar is too hard to take off with a toothbrush. Thus we must take it off with dental instruments.

Tell me!

4. Where on the tooth does the tartar form?

   Draw the tartar.

5. Describe what tartar feels like:

   _____

   _____

6. Look in Packet 3. Take out the two pictures. Which picture of the teeth has the tartar? "a" or "b" Circle the right answer.

These are the answers.

4. Is this your drawing? I hope so.

5. Tartar feels rough and hard.

6. Picture "b" was the picture with the tartar on the teeth.

   I hope you could tell the difference!

STAIN

Have you ever seen dark areas on someone's teeth? Then you have probably seen our next dental deposit, STAIN.

Stain can look like this:

It gets on all sides of the teeth.

It can be many colors:

brown

black

yellow

orange

green

People can get STAIN on their teeth by:

1. smoking cigarettes, cigars, or a pipe
2. pigments in the food deposits left on the teeth
3. drinking coffee or tea

Any rough surface such as tartar will stain easily.

STAIN makes teeth look unattractive and dark. Thus, by taking off the STAIN, the teeth become beautiful and white again.

NOTICE: If STAIN is on the tooth a long time, sometimes it gets into the tooth and we cannot get it off.

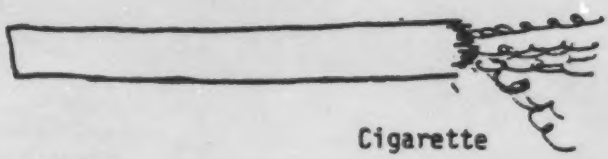
7. Draw three things that cause stain on the teeth:

Look in packet 1: Take the mirror and check to see if you have STAIN on your teeth.

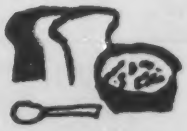
8. If you have STAIN, tell me where it is: _____

_____

7. These are three things that cause stain on the teeth:

1. 

Cigarette

2. 

Food

3.

Coffee

8. Did you have some stain?

POST-TEST

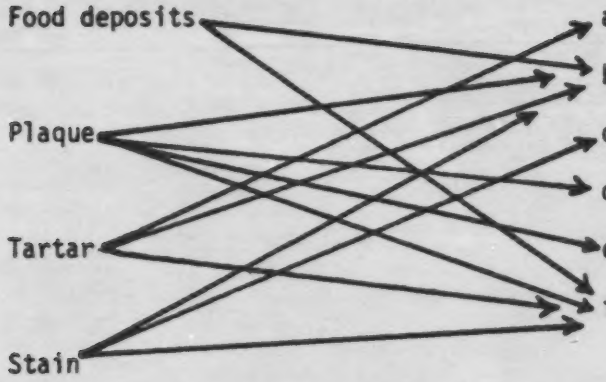
On the left is a list of dental deposits. On the right is a description of the dental deposits. Match the dental deposits with the description by drawing a line and connecting them. Check the example (Food deposits)

There can be more than one line drawn from the dental deposits to the description.

Dental Deposits	Description
Food deposits →	a. Is hard and rough
	b. Gets in between the teeth
Plaque	c. Is a brown color
	d. Is slippery and bumpy
Tartar	e. Causes unhealthy gums and bone
	f. Can make teeth unattractive
Stain	

POST-TEST ANSWER KEY

Dental Deposits	Description
Food deposits	a. Is hard and rough
Plaque	b. Gets in between the teeth
Tartar	c. Is brown color (and many other colors)
Stain	d. Is slippery
	e. Causes unhealthy gums and bone
	f. Can make teeth unattractive



13.

ANSWER SHEET TO PRACTICE QUESTIONS

1.

2. 1)

   2)

3.

4.

5.

6. Circle a or b

7.

8.

ANSWER SHEET TO POST-TEST

Dental Deposits	Description
Food Deposits	a. Is hard and rough
	b. Gets in between teeth
Plaque	c. Is a brown color
	d. Is slippery and bumpy
Tartar	e. Causes unhealthy gums and bone
Stain	f. Can make teeth unattractive

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A Project of the League for Innovation in the Community College

DEPOSITOS DENTALES

Por

Patricia Lind

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TEMA:	Depósitos Dentales
INSTRUCTORA:	Sra. Patricia Lind
INSTITUCION:	Foothill College
CLASE O CURSO:	Higiene Dental (Para estudiantes guatemaltecos: 6º grado)
MATERIAL QUE SE NECESITA:	Paquete 1 - 2 tabletas que revelen manchas y un espejo; Paquete 2 - retratos de dientes; Paquete 3 - Retrato de los dientes, 1 con sarro, 1 sin sarro; Un pedazo de 1" x 1" de azulejo para la página 3; Un pedazo de yeso de Paris para la pagina 6.

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Depósitos dentales

Ahora, llegamos a la mitad de nuestras lecciones. Esta es una lección muy importante porque nosotros hablaremos acerca de los depósitos dentales. Estos depósitos se forman sobre los dientes. Como yo dije en la lección anterior, el papel de la Higienista Dental es ayudar a la gente a mantener su boca sana. Nosotros hacemos esto, limpiando todos los depósitos que se hayan en los dientes.

Nosotros aprenderemos en esta lección sobre los depósitos en los dientes. Los depósitos de que hablaremos son:

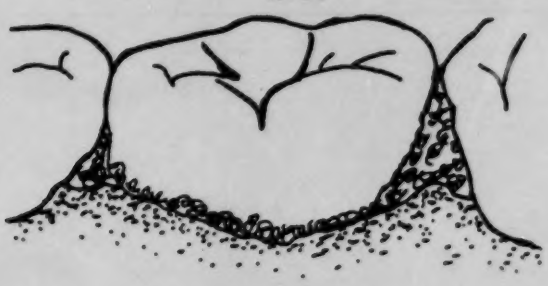
Depósitos de comidas
Placa depositada
Sarro depositado
Sucio depositado

DEPOSITOS DE COMIDA

Los depósitos de comdia nosotros ya sabemos cuales son.

Estoy, segura, que algunas veces, Uds. han comido algo pegajoso y Uds. lo sienten entre los dientes o encima.

Asi:



Los depósitos de comida dan a la boca mal sabor
y hacen que nuestros dientes no se vean atractivos.

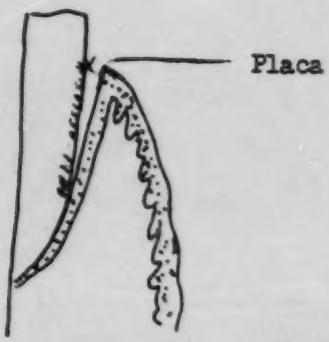
Observe sus dientes con la lengua. Siente restos de comida entre sus dientes? o encima? El cepillo de dientes puede limpiar estos depósitos.

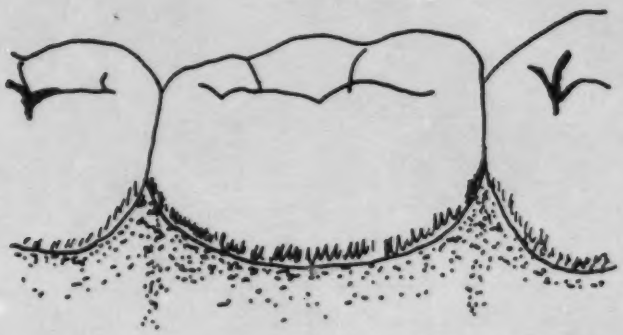
Ahora, Uds. ya saben acerca de los depósitos de comida, veamos acerca de los depósitos dentales que pueden ser nuevos para Uds.

Pasemos a la siguiente página y los encontraremos:

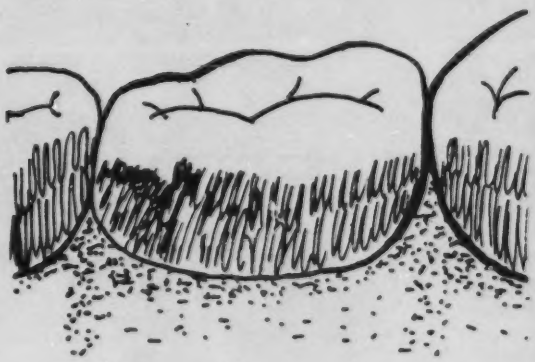
PLACA

Las placas son depósitos resbalosos de saliva que se forman sobre los dientes, pocos minutos después de lavarse. Estos crecen en los dientes comamos o no, comidas. Las placas se pueden remover con el cepillo de dientes. Se forman alrededor de las encías, sobre los dientes y en el espacio entre los dientes.



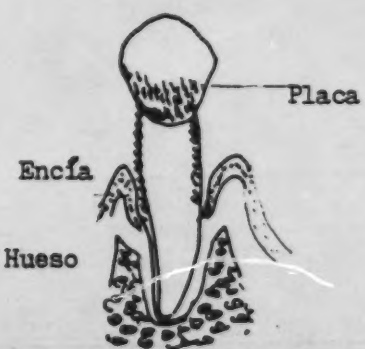


Cuando quedan sobre los dientes por un día, estos crecen, tambien se ponen más gruesos porque aparecen bacterias entre las placas.



Cuando la bacteria esta dentro de la placa, irritan las encías y al hueso y hace que estos se deterioren (se pongan malos).

¿ Recuerda?



PLACA

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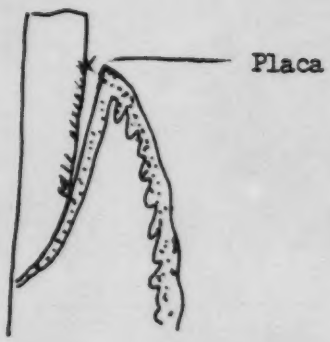
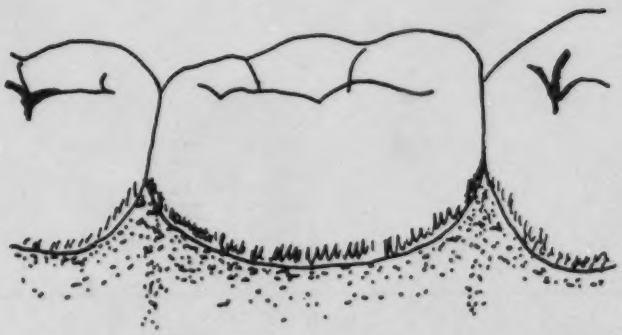
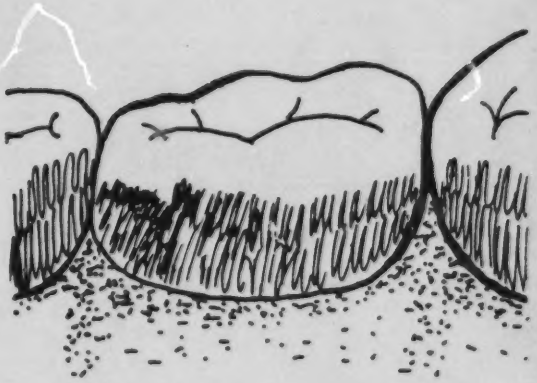


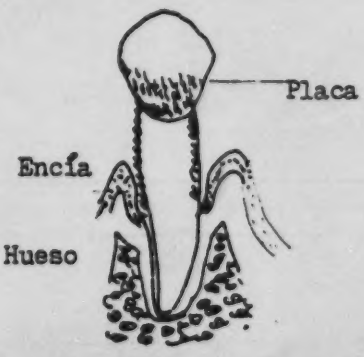


Cuando quedan sobre los dientes por un día, estos crecen, tambien se ponen más gruesos porque aparecen bacterias entre las placas.



Cuando la bacteria esta dentro de la placa, irritan las encías y al hueso y hace que estos se deterioren (se pongan malos).

¿ Recuerda?



¿Se recuerda?

Conteste las siguientes preguntas:

1. Sobre este diente, dibuje donde la placa se empieza a formar:

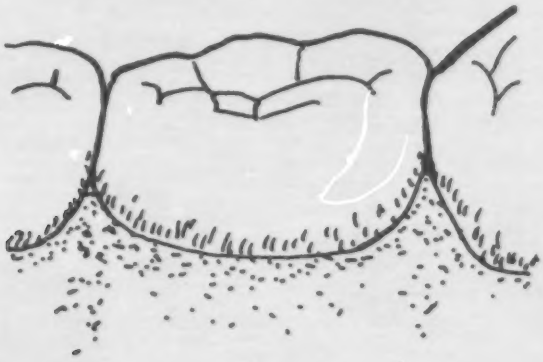
2. ¿Cuales son las 2 cosas que la bacteria causa en la placa?
   1. _____
   2. _____

3. Mire en el paquete 1.
   Tome una pastilla y el espejo. Mastique la pastilla por un minuto, después escúpala. Ahora, mire en el espejo. ¿Hay alguna mancha rosada sobre sus dientes? ¿Ud. encontró placa? Como dije antes, las placas se forman en nuestros dientes a diario.

4. Ahora paquete 2.
   Saque los cuadros. ¿Son sus dientes como el cuadro "A" o cuadro "B"?
   _____

Aquí estan las respuestas:

1. Asi es como las placas se empiezan a formar. ¿Es verdad?



2. Las dos cosas que la bacteria causa en la placa son:
   1. enferma a las encías
   2. enferma al hueso

3. ¿Dígame, sus dientes se parecen a los del cuadro "a" o "b"?
   Circule la correcta respuesta.

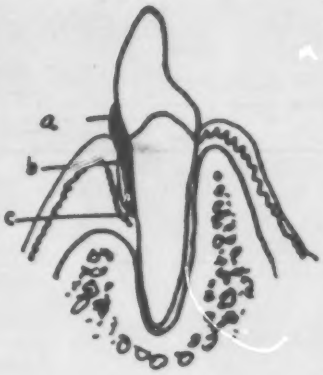
SARRO

El próximo depósito dental es el sarro.

El sarro es una placa que es más dura. Se ve y se siente como esto:

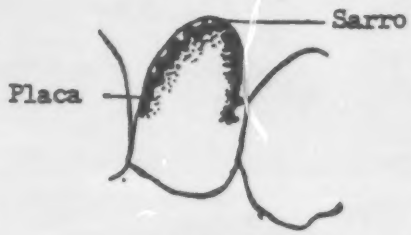
1. El sarro se forma
   a. arriba de las encías
   b. Encima de la corona y encima de la raíz sobre las encías

Y



a. encima de las encías
b. sobre la raíz, debajo de las encías y sigue
c. en el fondo del espacio

Siempre hay una capa de placa sobre el sarro. Por eso es muy importante remover el sarro, para no tener las encías o el hueso enfermo.

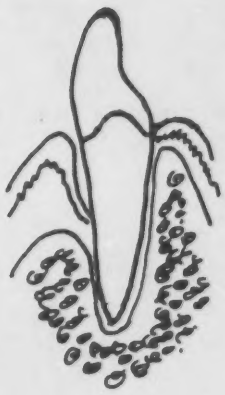


Nota: El sarro es muy duro para quitarlo con el cepillo de dientes; entonces hay que sacarlo con instrumentos dentales.

Más sobre esto, en la leccion No. 6.

Dígame:

1. ¿En qué parte del diente se forma el sarro? Dibuje el sarro.



2. Describa como se siente el sarro.

_____

_____

3. Vea en el paquete 3. Saque dos fotografías o cuadros. ¿Cuál cuadro de los dientes tiene sarro? "a" o "b"? Circule la correcta respuesta.

7.

Estas son las respuestas.

1.¿ Es este su dibujo? Espero que sí.

2. El sarro se siente ordinario y duro.

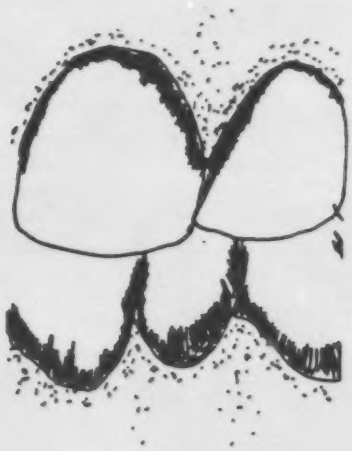
3. La figura "b" es el cuadro con sarro sobre el diente.
¡Espero que Ud. pueda decir la diferencia!

SUCIEDAD

¿Ha Ud. visto, partes obscuras sobre algunos dientes? Entonces Ud. ha visto nuestro próximo depósito dental: Suciedad.

La suciedad se ve asi:

Esto sale en todos los lados del diente.



Puede ser de varios colores:

café
negro
amarillo
anaranjado
verde

La gente puede tener sucios los dientes por:

1. Fumar cigarillos, puros o pipa.
2. Algunos pigmentos de la comida lo dejan sobre los dientes.
3. Cuando se toma café o té.

El sarro siempre ensucia o mancha los dientes.

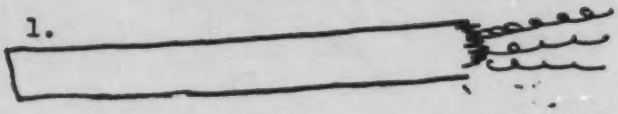
Los dientes sucios se ven obscuros y no atraen.
Si se quitan las manchas o suciedad, los dientes se vuelven a ver blancos y bonitos.
Nota: Si la suciedad se mantiene sobre los dientes por mucho tiempo, permanecerá sobre los dientes y no se podran limpiar.

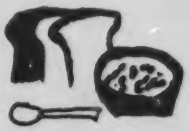
Dibuje 3 cosas que son la causa de ensuciar los dientes:

Mire en el paquete No. 1: Tome el espejo y vea si Ud. tiene sucios los dientes. Si Ud. tiene manchas (sucios) dígame, ¿donde esta? _____

_____

Estas son 3 cosas que son la causa de ensuciar los dientes:

1.  Cigarrillo

2.  Comida

3. Café

¿ Tiene Ud. algunas manchas o suciedades?

Ahora el Test:

En la izquierda hay una lista de depósitos dentales. A la derecha está la descripción de los depósitos dentales. Haga una linea, conectando los depósitos con la descripción. Vea el ejemplo (Depósitos de comida).

Puede haber más de una linea de los depósitos a la descripción.

Depósitos Dentales	Descripción
Depósitos dentales	a. Es duro y ordinario
Placa	b. están entre los dientes
Sarro	c. Es de color café
	d. es resbaloso y abultado
Mancha o sucio	e. enferma a las encías y hueso
	f. hace que los dientes no sean atractivos

Vea las respuestas:

Depósitos Dentales	Descripción
Depósitos de Comida	a. es duro y ordinario
	b. sale entre los dientes
Placas	c. Es de color café (y otros colores)
	d. Es rasbaloso
Sarro	e. Hace que las encías y hueso no sean sanas
	f. Hace que los dientes no sean atractivos
Manchas	

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DENTAL INSTRUMENTS FOR EXAMINING THE TEETH

by

Patricia Lind

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TITLE:	Dental Instruments for Examining the Teeth
AUTHOR:	Patricia Lind
INSTITUTION:	Foothill College, Los Altos, Calif.
INTENDED STUDENTS:	Dental hygiene (6th grade educational level)
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	1 dental mouth mirror; 1 hand mirror; 3 explorers - #23/17, #3DE, Orban feeler (Hu Friedy Mfg. Co., 3118 N. Rockwell St., Chicago, Ill. 60618); 1 Marquis probe (Marquis Dental Mfg. Co., P.O. Box 31086, Aurora, Colo. 80011); 1 picture with dental mirror showing lingual lower anterior teeth; 1 picture with right cheek retracted.

Originally written for Guatemalan dental aide students (6th grade reading level), this unit is also available in a Spanish version.

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We are now ready to talk about dental instruments. There are two types of dental instruments. They are:

1. Dental Instruments for examining the teeth
2. Dental Instruments for cleaning the teeth.

In this lesson we will talk about the Dental Instruments for Examining the Teeth. These instruments are called.

1. The dental mirror
2. The Explorer
3. The Probe

We will find out about each dental instrument and how it is used.

Let's start →

1.

THE DENTAL MIRROR

The dental mirror is a small mirror on a handle.

Take the mirror out of your kit. It is the first instrument. Notice its size. How much can you see in it?

The mirror is used to reflect light into the mouth. This helps to see the teeth and gums better.

The dental mirror is small so that it can be used to see the teeth on the tongue side as well as the big teeth in the back part of the mouth.

The dental mirror can be used to pull the cheeks back and away from the teeth in order to see the teeth and gums better.

Now take the hand mirror out of packet 1.

Using your hand mirror in left hand, take the dental mirror in your right hand and place it so you can see the tongue side of your small teeth. Check this in your hand mirror.

Now:

Take the dental mirror and pull back your right cheek. Check this in your hand mirror.

Look at the two pictures in packet 2 to help you.

1. Did they help?

Now look at all sides of <u>your</u> teeth with the mirror.

2. Can you see them?

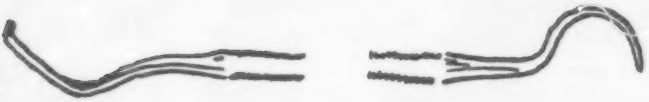
EXPLORER

The EXPLORER is used to find dental deposits on the teeth especially TARTAR before cleaning the teeth.

The EXPLORER is also used to feel that all the deposits have been removed after cleaning the teeth.

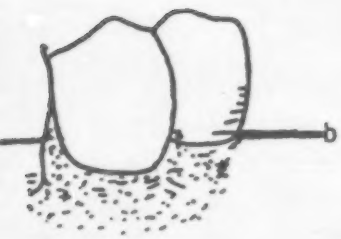
This dental instrument is able to feel all the small bumps and dips on the crown and root of the tooth.

We will be using three EXPLORERS. Take them out of your kit. They have red stripes. Match the EXPLORERS to the drawings.



#1

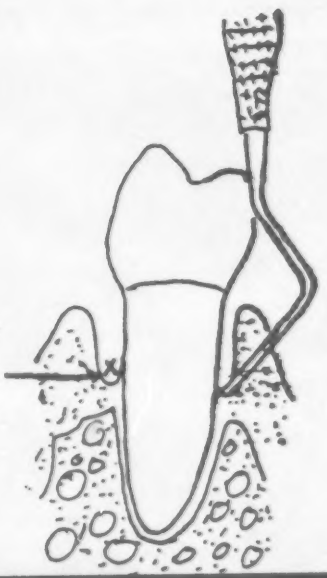
#2



These two are used to explore (a) between the teeth (b) and around the gums.

#3

This explorer is used to explore the deposits deep in the space.



3. Draw each explorer while looking at your instruments:

#1 #2 #3

4. Which explorer is used when the SPACE is deep?

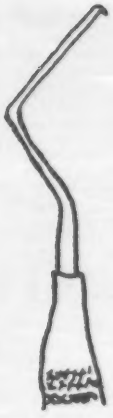
_____

They should look like this!

#1

#2

#3



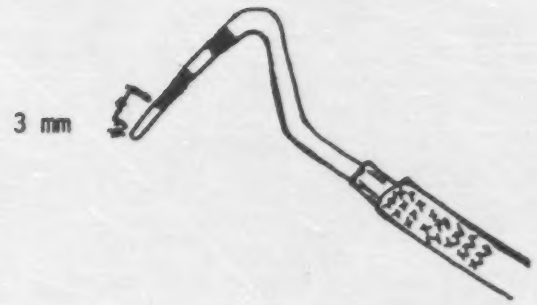
#3 is used to explore the deep SPACE.

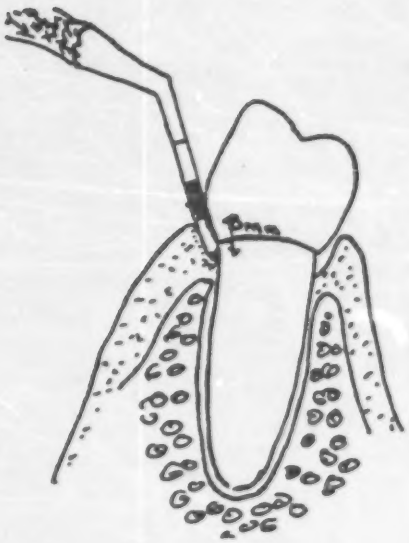
Very good!

THE PROBE

- The PROBE looks like this:

Take the probe from the kit, it has a yellow*stripe. Match it with the drawing.

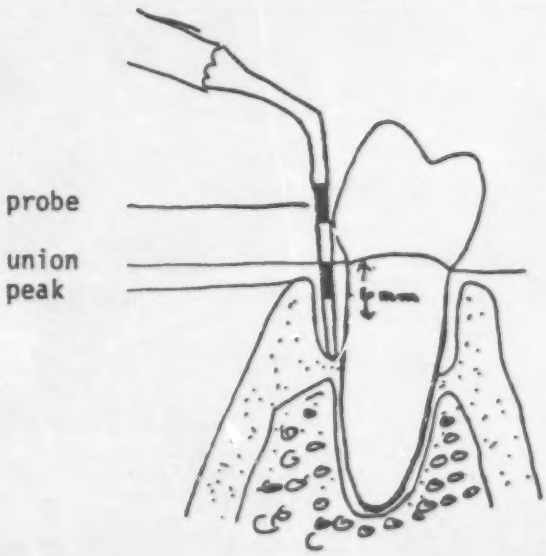




It has dark and light marks on it because it is used to measure deep SPACES. Each mark is 3 millimeters or 3 m m.

If the SPACE is 3 millimeters deep from the top of the peak to the bottom of the SPACE, the bone is healthy.

If the SPACE is more than 3 millimeters from the union to the bottom of the SPACE, the bone is unhealthy. This space is 6 millimeters.



We measure from the union or the top of the PEAK. We measure from the peak when it [illegible] above the union.

What do you know about the PROBE?

5. Draw the Probe while looking at your instruments.

6. How many millimeters does the PROBE go into the SPACE?

7. How many millimeters does the PROBE go into the SPACE?

Does your PROBE look like this?

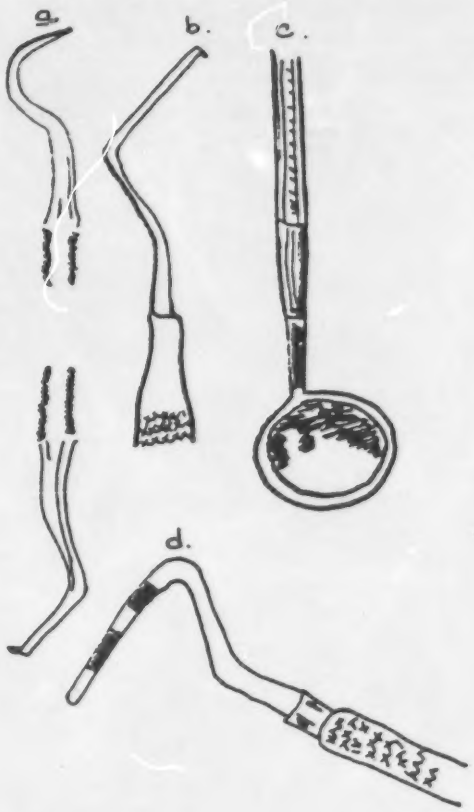
5 millimeters

6 millimeters

9.

POST-TEST

Let's see if you understand all about the Dental Instruments for Examining the Teeth.



1. Name these Dental Instruments:

   a. _____

   b. _____

   c. _____

   d. _____

2. What does the mirror do? _____

   _____

3. Which instrument measures the depth of the SPACE? _____

   _____

4. Which instrument checks for dental deposits? _____

   _____

POST-TEST ANSWER KEY

How did you do learning about the dental instruments for examining the teeth?

1. a. Explorer #1

   b. Explorer #3

   c. Dental Mirror

   d. The Probe

2. The mirror reflects light into the mouth. It helps to see the tongue and teeth in the back part of the mouth and pulls back the cheeks to see the teeth.

3. The Probe

4. The Explorer

If you understand these dental instruments, let's go on to find out about some more dental instruments in Lesson 6.

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INSTRUMENTOS DENTALES

PARA

EXAMINAR LOS DIENTES

Por

Patricia Lind

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TEMA:	Instrumentos Dentales
INSTRUCTORA:	Sra. Patricia Lind
CLASE o CURSO:	Higiene Dental
TIEMPO CALCULADO:	15 minutos
MATERIAL QUE SE NECESITA:	1 espejo para la boca (cualquer marca); 1 espejo de mano; 3 exploradores - #23/17, 3DE, #Orban Feeler por Hu Friedy Mfg. Co., Inc., 3118 No. Rockwell St., Chicago, Ill. 60618; 1 Marquis Probe - Marquis Dental Mfg. Co., P.O. Box 31086, Aurora, Colorado 80011; 1 Cuadro con espejo dental enseñando los dientes anteriores e inferiores a la lengua.

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INSTRUMENTOS DENTALES PARA LOS DIENTES

Ahora y estamos listos para hablar sobre los instrumentos dentales. Ellos son:

1. Instrumentos Dentales para examinar los dientes.
2. Instrumentos Dentales para limpiar los dientes.

En esta lección hablaremos acerca de los Instrumentos para examinar los dientes.

Estos instrumentos se llaman:

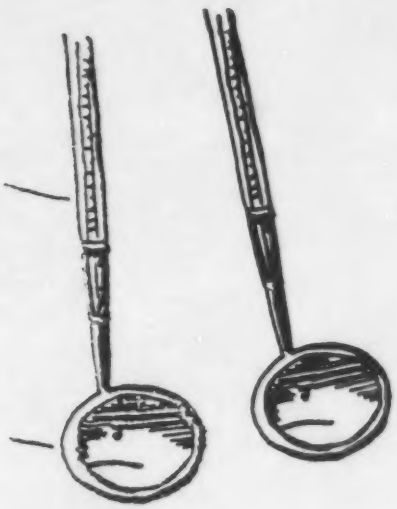
1. Espejo dental
2. Explorador
3. Explorador que mide lo profundo del espacio.

Nosotros sabremos acerca de cada instrumento y como es usado.

Vamos a empezar

EL ESPEJO DENTAL

El espejo dental es un pequeño espejo redondo con su agarrador.



Saque el espejo de su estuche. Este es el primer instrumento. Note el tamaño. ¿Cuánto puede ver Ud. en él?

El espejo se usa para reflejar la luz en la boca. Este ayuda a ver mejor los dientes y las encías.

El espejo dental es pequeño por eso se usa para ver los dientes del lado de la lengua, asi como los dientes grandes o muelas en la parte atrás de la boca.

El espejo dental se usa para separar las mejillas de los dientes para poder ver mejor los dientes y las mejillas.

Ahora, tome el espejo de mano, sáquelo del paquete 1.

Con su espejo de mano en la mano izquierda, tome el espejo dental con su mano derecha y póngalo al lado de la lengua para ver sus dientes pequeños. Ud. los puede ver en el espejo de mano.

Ahora: Tome el espejo dental y colóquelo para atras de la mejilla, para ver sus muelas o dientes grandes. También los verá en el espejo de mano.

Vea los cuadros en paquete 2, para ayudarse.

¿Lo ayudaron?

Ahora, vea a todos los lados de sus dientes con el espejo.

¿Los puede Ud. ver?

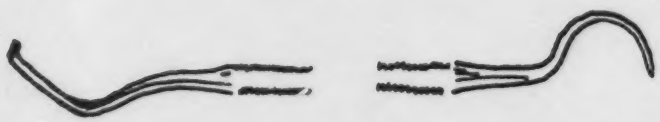
EXPLORADOR

El explorador es usado para encontrar depósitos en los dientes, especialmente SARRO antes de limpiar los dientes.

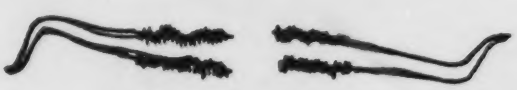
El explorador también se usa para sentir si todos los depósitos han sido removidos después de haber limpiado los dientes.

Este instrumento dental permite sentir todos los pequeños abultamientos y hendiduras sobre la corona y raíz de los dientes.

Nosotros usaremos 3 exploradores. Sáquelos de su estuche. Ellos tienen listas rojas. Compare los exploradores con sus dibujos.



#1



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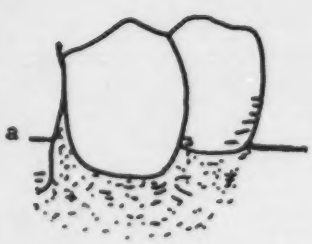
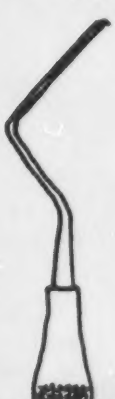


Estos dos son usados para explorar (a) entre los dientes (b) y alrededor de las encías.



#3

Este explorador se usa para explorar los depósitos profundos en el espacio.

Dibuje cada explorador, mientras ve sus instrumentos:

#1 #2 #3

¿ Cual explorador se usa cuando el <u>espacio</u> es profundo?

Ellos deben verse asi:

#1

#2

#3

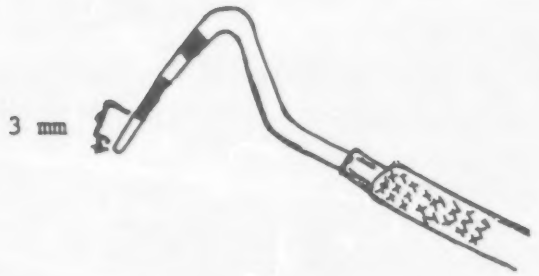
#3 es usado para explorar lo profundo del <u>espacio</u>.

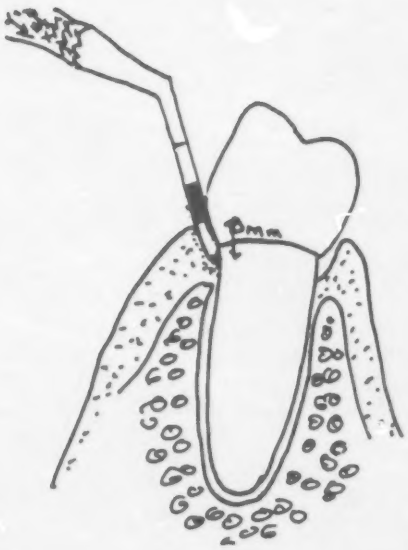
¡Muy bien!

LA SONDA O EXPLORADOR QUE MIDE LO PROFUNDO DEL ESPACIO

Este explorador se ve así:

Tome este explorador de su estuche. Este tiene una lista amarilla. Compárelo con el dibujo.



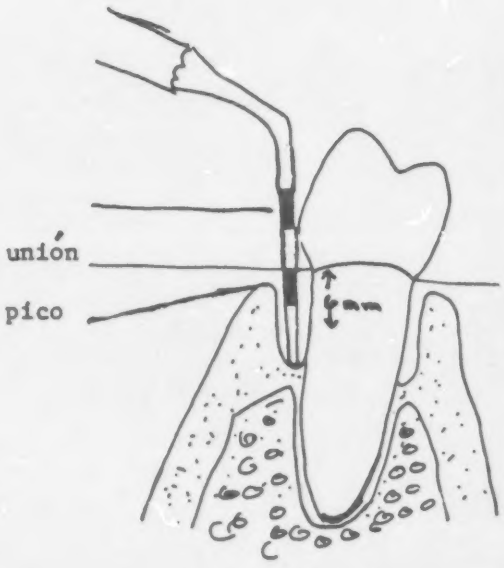


Tiene marcas obscuras y claras porque es usado para medir lo profundo de los espacios. Cada marca tiene 3 milímetros o 3 m.m.

Si el espacio tiene 3 m.m. de profundidad, desde la altura del pico hasta el fondo del espacio, el hueso está sano.

Si el espacio es más de 3 m.m. de la unión al fondo del espacio, el hueso no está bien. El espacio es de 6 m.m.

Nosotros medimos de la unión o de la altura del pico. Medimos del pico cuando está arriba de la unión.



¿ Qué sabe Ud. de este explorador que mide lo profundo del espacio?

1. Dibújelo, mientras ve sus instrumentos.

2. ¿ Cuantos milímentros entra este instrumento dentro del espacio?

3. ¿ Cuantos milímetros entra este instrumento dentro del espacio?

¿Se ve el explorador que mide lo profundo del espacio así?

2. 5 milímetros.

3. 6 milímetros.

Veamos si Ud. entendió todo acerca de los Instrumentos Dentales para Examinar los Dientes.

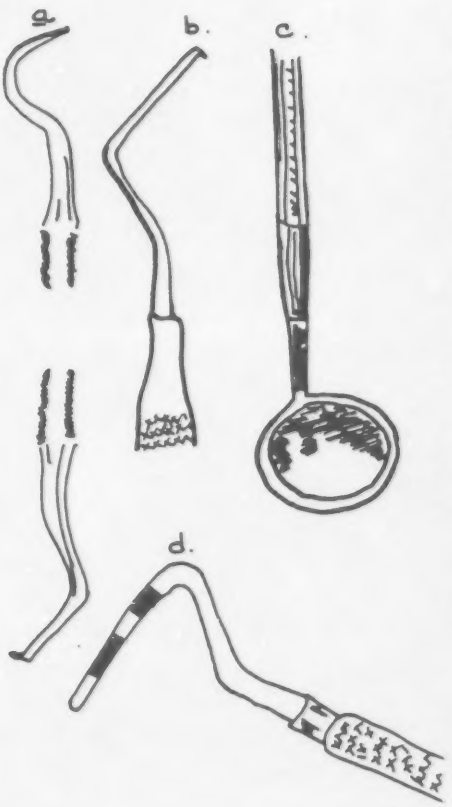
1. Escriba los nombres de los Instrumentos Dentales:

   a. _____

   b. _____

   c. _____

   d. _____



2. ¿Para qué sirve el espejo dental? _____

_____

3. ¿Cuál instrumento mide lo profundo del Espacio? _____

_____

4. ¿Cuál instrumento sirve para ver los depósitos dentales? _____

_____

¿Que hizo Ud. para aprender acerca de los instrumentos dentales para examinar los dientes?

1. a. Explorador #1

   b. Exploardor #3

   c. Espejo dental

   d. Explorador que mide lo profundo del espacio.

2. El espejo refleja la luz en la boca. Ayuda a ver la lengua y los dientes en la parte atrás de la boca y empuja para atrás las mejilla para ver los dientes.

3. Explorador que mide lo profundo del espacio.

4. El Explorador

Si Ud. entendió estos instrumentos dentales, vamos a encontrar más, sobre más instrumentos dentales en la leccion No. 6.

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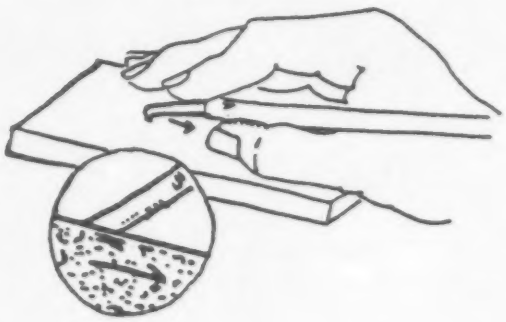
SHARPENING DENTAL INSTRUMENTS

by

Patricia Lind



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TITLE OF PACKAGE:	Sharpening Dental Instruments
AUTHOR:	Patricia Lind
INSTITUTION:	Foothill College, Los Altos, Calif.
INTENDED STUDENTS:	Dental hygiene (6th grade educational level)
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	1 Arkansas Dental Stone; Oil; 1 Tang File; 1 dull Curet Instrument; 1 dull Sickle Instrument; 1 dull Hoe Instrument; 2 dull File Instruments

FIELD TEST COPY

NOTE: Effective use of this learning unit requires that materials listed above be made available to the student.

Originally written for Guatemalan dental aide students (6th grade reading level), this unit is also available in a Spanish version.

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This is lesson number seven!

In this lesson we are going to learn how to sharpen our instruments. It is important to have sharp instruments because they save us time and extra work. We will talk about the reasons in this lesson. Also we will talk about what sharp instruments look and feel like and what dull instruments look and feel like. I will show you how you can check to make sure that your instruments are sharp.

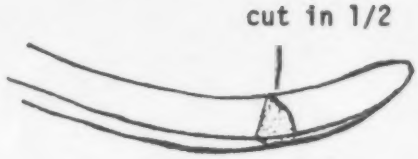
We will sharpen these instruments in this lesson:

1. The spoon
2. The spade
3. The hoe
4. The file

This is an important lesson so read and practice!

Dull and Sharp Instruments

Remember, the spoon instrument? Here is a section of it to show you something about dull and sharp instruments.

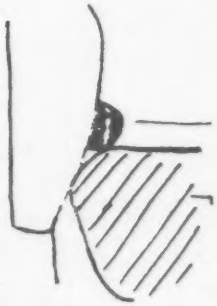


sharp instrument with pointed edges

dull instrument with rounded edges

This is what happens to the TARTAR when the instrument is dull.

1.

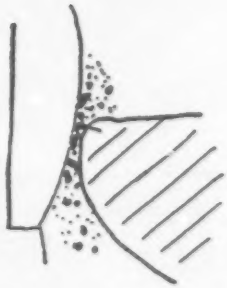


2.

breaks a piece off but leaves a piece on the tooth

3.

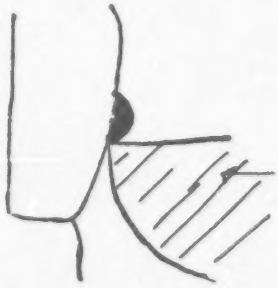
4.



crushes, but leaves pieces on the tooth

This is what happens when the instrument is <u>sharp</u>!

1.



2.

The tooth is <u>clean</u>

You see, by taking off all the TARTAR you will save time because you won't have to go back to get the rest of the TARTAR 2.

Let's practice

1. Draw a sharp instrument

2. Why is it important to have sharp instruments?

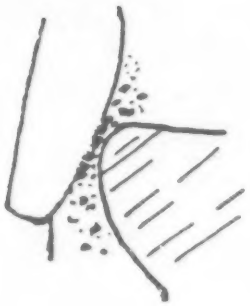
3. Draw what happens to the tartar when it is taken off by a dull dental instrument.

How did you do? Now, you can check!

1. This is a sharp instrument

2. It is important to have sharp instruments to save time and extra work.

3. Here is what happens to the tartar when we use dull instruments:



crushes but leaves pieces on the tooth

breaks a piece off but leaves a piece on the tooth

Now, how do we know if the instruments are sharp?

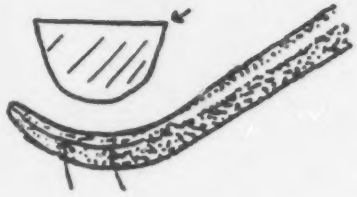
There are two ways to check:

First

The Eye Test

The dull instrument has a round side at the blade so it will reflect light--like this----------

The sharp instrument will be pointed, not rounded, so it won't reflect any light--like this----------

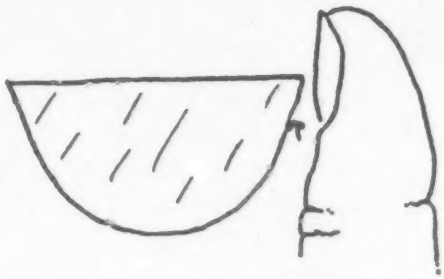


Second

The Thumb Nail Test

Put the cutting blade of the instrument on the thumb nail. Try to catch or grab the edge of the finger nail.

If it catches, the dental instrument is sharp!
If it slides across thumb nail, it is dull!



Take the instrument that has an orange stripe (the spoon) out of the packet.

Let's see if the instrument is sharp.

4. First try the eye test

   Is it sharp? _____

5. Next, try the thumbnail test

   Is it sharp? _____

ANSWERS ON THE NEXT PAGE ----------

Answer to No. 4: No

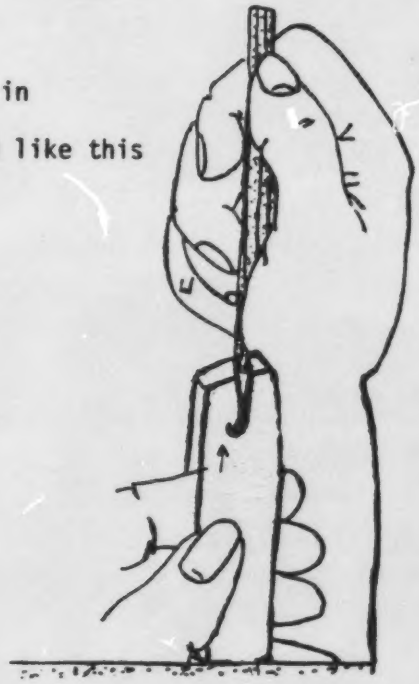
Answer to No. 5: No

HOW TO SHARPEN THE SPOON!

We sharpen the spoon with a special dental stone. We always add a few drops of oil or water and rub it into the stone.

NOW

Hold the spoon in your right hand like this



Put the spoon against the stone.

The curved side of the spoon is parallel to the table.

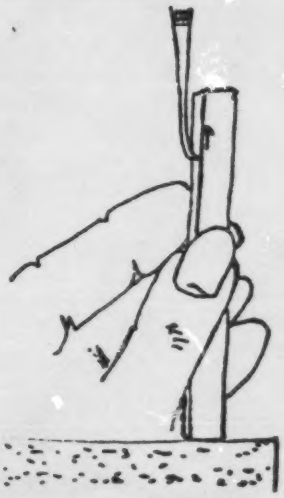
THEN

Pull the spoon slowly up.

Hold the stone in your left hand

Stone and hand resting on table

Sharpen the Other Side of the Spoon



This is the other side of the stone and the other side of the instrument. Now gently pull the spoon up.

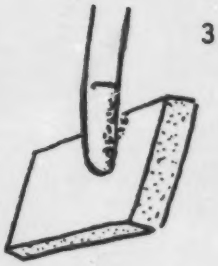
Turn page for more----------

With the spoon on the stone apply pressure to the stone rolling the instrument from the (1) back of blade to the (2) middle side of the blade and to the (3) front side of the blade.

Like this:

1. Backside of blade.

2. Middle side of blade.



3. Front side of blade.

<u>Sharpening the Tip</u>

1.

Put the stone on top of the blade. Now sharpen one side.

2.

Now sharpen the tip.

3.

Now sharpen the other tip.

Hold the stone in your left hand

and

hold the instrument in your right hand.

DO NOT MAKE THE TIP LOOK LIKE THIS:

Now let's practice.

Take the spoon with the orange stripe and follow pages 7 & 8.

6. Check with the eye and thumb nail test. Then let me check your sharpening.

How do we sharpen the spade?

We sharpen the spade the same way

E X C E P T

We do not sharpen the tip because the tip will always be sharp.

7. Take out the spade with the blue stripe. Sharpen and let me check.

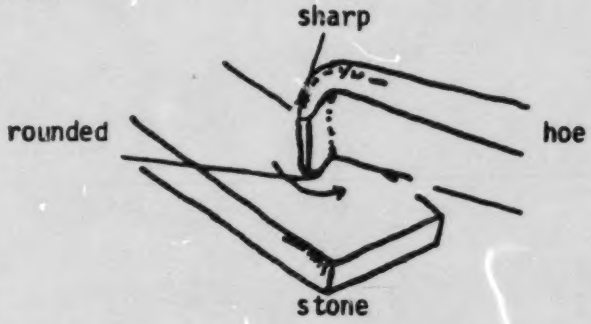
All ready?

Let's go on---------->

HOW DO WE SHARPEN THE HOE?

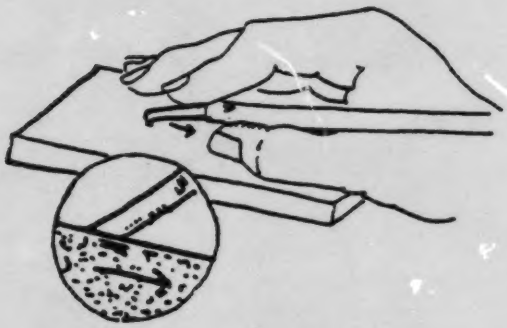
The hoes are made with real sharp corners; so we must first round the corners. We do that so we won't hurt the gums.

Let's do that first:



Now, let's sharpen the HOE

Sharpen this blade



Place the stone on the table, put the instrument on the stone as shown and pull the instrument toward you.

Now, let's try one:----------

Let's practice sharpening the hoe.

Take the hoe out of the packet with a brown stripe.

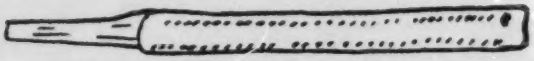
Since this is a used hoe, we do not have to round the corners.

8. Now sharpen the edges. Test it and let me check it.

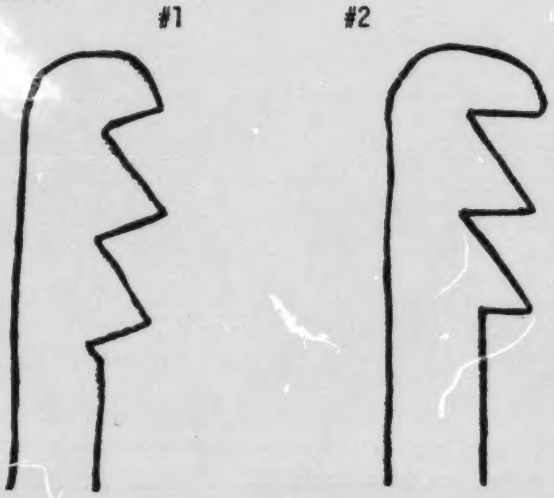
Now that we have sharpened the hoe, let's sharpen the file.

FILE

The FILE is sharpened with a File Sharpener.

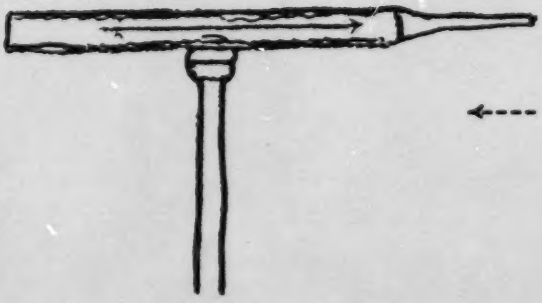


The FILES have blades that angle differently -- like these: -------->

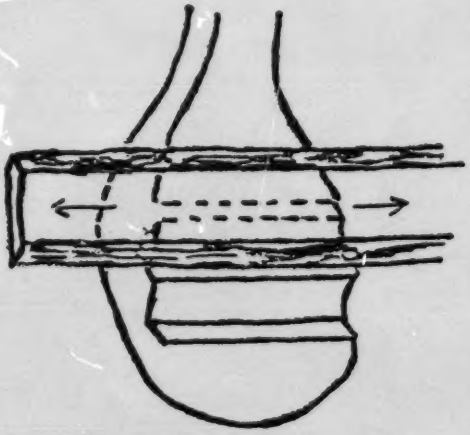


SHARPENING THE FILE

1) Check the angle of the blade.
2) Place FILE sharpener next to the blade; move sharpening file back and forth to sharpen.
3) Place FILE sharpener next to the blade below and move FILE sharpener back and forth to sharpen.
4) Repeat sharpening on the rest of the blades.



See the FILE sharpener on the blade <---- ----> Move it back and forth



Now take out the two FILES with the green stripes and the FILE sharpener.

9. Sharpen the file, test it, and check with me.

Now that we have sharp instruments, let's see how much you remember:

POST-TEST

1. a. Draw a dull blade of an instrument.

   b. Draw a sharp blade of an instrument.

2) What are the two tests that show if the instrument is sharp?

   1) _____

   2) _____

3) What does the tip of the spoon look like if it is sharpened incorrectly? (Draw it.)

4) Why round the corners of the new hoes?

_____

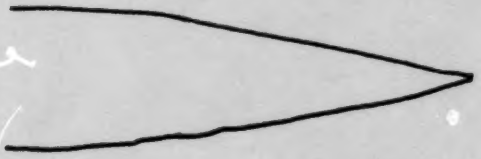
_____

POST-TEST ANSWER KEY

1. a.

   b.

2. The eye test and the finger nail test.

3. 

4. The corners of a new hoe are rounded so the sharp edges will not hurt the gums.

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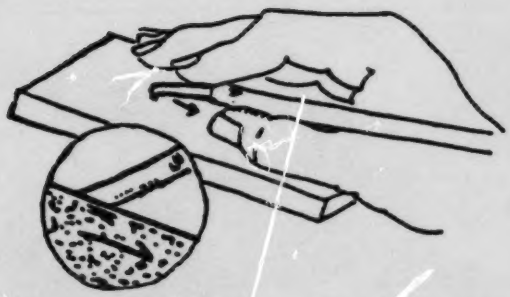
COMO AFILAR LOS INSTRUMENTOS DENTALES

por

Patricia Lind



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TEMA:	Como Afilar los Instrumentos Dentales
INSTRUCTORA:	Sra. Patricia Lind
CLASE O CURSO:	Higiene Dental (Para estudiantes guatemaltecos: 6º grado
TIEMPO CALCULADO:	15 minutos
MATERIAL NECESITADO:	1 Piedra dental Arkansas; 1 Lima de Tango; 1 Cureta Roma; 1 Hoz Roma; 1 Azadón Romo; 2 Limas Romas (Romo = sin filo)

COPIA PROVISORIA

Publicado tambien en Ingles

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Esta es la lección No. 7!

COMO AFILAR LOS INSTRUMENTOS DENTALES

En esta lección nosotros vamos a aprender como afilar nuestros instrumentos. Es muy importante tener los instrumentos con filo porque así se ahorra tiempo y se trabaja menos. Hablaremos acerca de las razones en esta lección. Tambien hablaremos acerca de como se ven y se sienten los instrumentos con filo y como se ven y se sienten los instrumentos sin filo. Yo les enseñaré como Uds. pueden ver y estar seguros que sus instrumentos tienen filo.

Nosotros afilaremos estos instrumentos en esta lección:

1. La cucharilla
2. La espada
3. El azadón
4. La lima

Esta es una importante lección, así es que léala y practíquela!

INSTRUMENTOS CON Y SIN FILO

Cortado por mitad (½)

Instrumento con filo y con la orilla puntuda.

Instrumento sin filo o romo y con la orilla redondeada.

Esto es lo que pasa con el <u>sarro</u> cuando el instrumento no tiene filo.

1.

diente

sarro

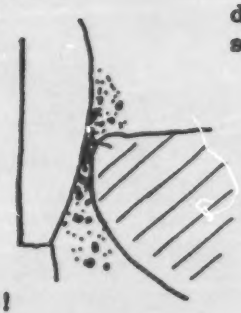
instrumento sin filo

2.

[illegible]pe una parte pero deja una parte sobre el diente.

3.

4.

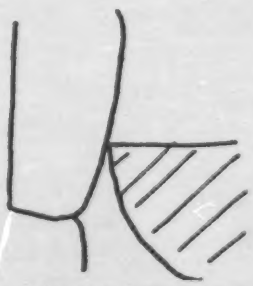


Deshace, pero deja piezas sobre los dientes

Esto es lo que pasa cuando el instrumento tiene <u>filo</u>!
Est

diente

instrumento con filo



El diente esta <u>limpio</u>!

Uds. ven, que sacando todo el sarro, Uds. ahorran tiempo porque no tienen que volver a sacar el resto del sarro.

Vamos a practicar:

1. Dibuje un instrumento con filo:

2. ¿Porque es importante tener instrumentos con filo?

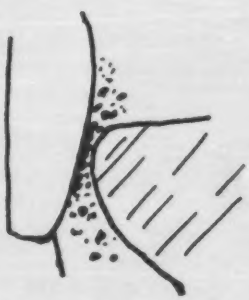
3. Dibuje que pasa con el sarro cuando es sacado por un instrumento dental sin filo.

¿Que hicieron Uds.? ¡Ahora Uds. pueden ver!

1. ¿Es este un instrumento con filo?

2. ¿Es importante tener instrumentos con filo para ahorrar tiempo y trabajar menos?

3. Aquí esta lo que pasa con el sarro cuando nosotros usamos instrumentos sin filo:



Lo deshace, pero deja pedazos sobre el diente.

Rompe una parte, pero deja una parte sobre el diente.

Ahora, ¿como sabemos nosotros si los instrumentos tienen filo?

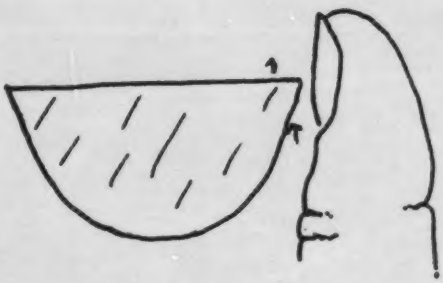
Hay dos formas de saber:

Primero: ¡viéndolo! El instrumento sin filo tiene la orilla redondeada, entonces reflejara luz como este ----------

Segundo:

Probando en la uña del dedo pulgar.
Ponga la hoja cortante del instrumento sobre la uña del dedo pulgar. Pruebe a coger la orilla de la uña.

¡ Si la coge, el instrumento dental tiene <u>filo</u>!
¡ Si se desliza sobre la uña, ese no tiene filo!



Tome el instrumento que tiene una linea anaranjada fuera del paquete.

Veamos si el instrumento tiene filo.

1. ¡Véalo!

   ¿Tiene filo? _____

2. Ahora, haga la prueba con la uña del dedo pulgar:

   ¿Tiene filo? _____

LAS RESPUESTAS EN LA PROXIMA PAGINA ----------

Respuesta No. 1: ¡No!

Respuesta No. 2: ¡No!

COMO AFILAR LA CUCHARILLA

Nosotros afilamos la cucharilla con una piedra dental especial. Siempre hay que agregar gotas de aceite o agua y sobar a la piedra.

Ahora:

Coja la cucharilla con la mano derecha asi:

Ponga la cucharilla contra la piedra.

El lado curvo de la cucharilla debe estar paralelo a la mesa.

ENTONCES

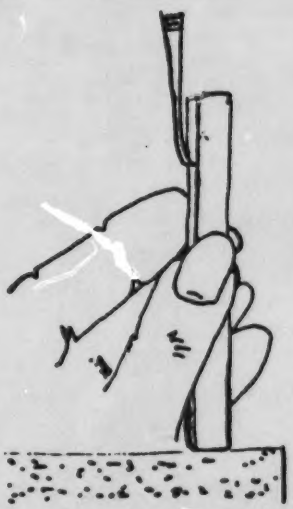
jala la cucharilla despacio para arriba.

Coja la piedra con la mano izquierda.

La piedra y la mano deben descansar sobre la mesa.

Afilar el otro lado de la cucharilla.

Este es el otro lado de la piedra y el otro lado del instrumento. Ahora, suavemente jale la cucharilla para arriba.

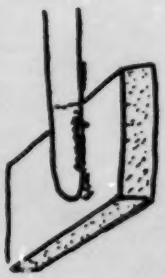


Pase a la siguiente página------

Con la cucharilla sobre la piedra, haga presión a la piedra, rodando el instrumento del lado de atras, al lado mediano y al frente.

Asi:

1.
Lado de atras



2.
Lado mediano

3.
Lado de frente

Afilando la Punta

Ponga la piedra arriba de la hoja.

Ahora afile un lado.

Coja la piedra con su mano izquierda y coja el instrumento con la mano derecha.

Ahora afile la punta.

Ahora afile el otro lado.

NO HAGA QUE LA PUNTA SE VEA ASI:

8

Ahora, vamos a practicar.

Tome la cucharilla con la linea anaranjada y siga las paginas 7 y 8. Véalo y haga la prueba de la uña del dedo pulgar. Entonces déjeme ver como lo afiló.

¿Como afilaremos la espátula?

Nosotros afilamos la espátula en la misma forma.

Exceptuando

No afilaremos la punta, porque la punta siempre es filuda.

Saque la espátula con la linea azul.

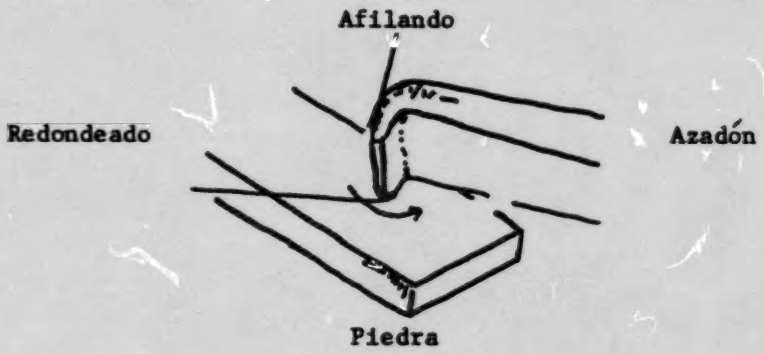
¡Afílela y déjeme verla!

Bueno, sigamos adelante----------

¿COMO AFILAMOS EL AZADÓN?

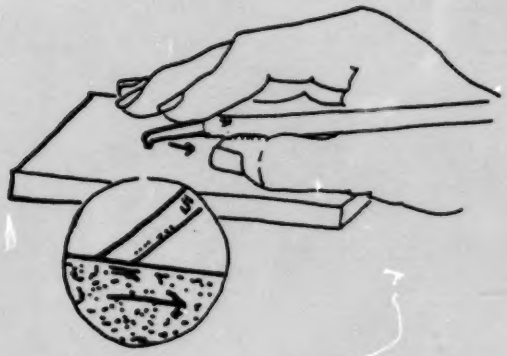
Los azadones son hechos con esquinas con filo entonces primero hay que redondear las esquinas. Nosotros hacemos eso para no lastimar las encías.

Hagamos eso primero:



Ahora: Vamos a afilar el azadón:

Afile esta hoja



Ponga la piedra sobre la mesa, ponga el instrumento sobre la piedra y muestre como jala el instrumento hacia Ud.

Ahora, vamos a probar uno----------

Vamos a practicar a afilar el azadón.

Tome el azadón del paquete, el de la línea café.

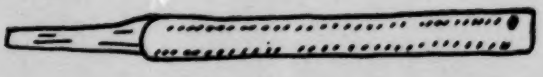
Como este es un azadón usado, no tenemos que redondear las esquinas.

Ahora afile las orillas. Pruebéle y deje que lo vea.

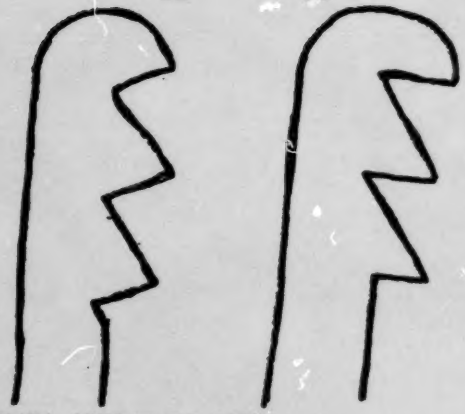
Ahora que hemos afilado el azadón vamos a afilar la lima.

LA LIMA

La lima es afilada con el afilador de lima.

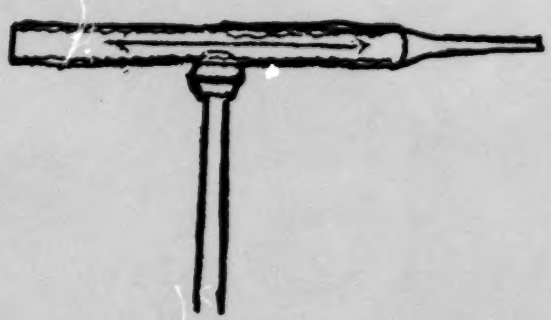


Las limas tienen hojas con angulos diferentes, como estos:----------

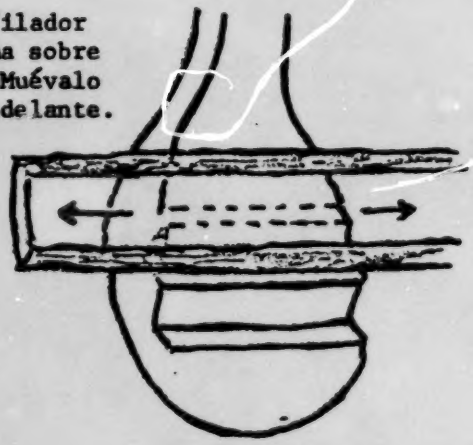


PARA AFILAR LA LIMA

1. Chequee el angulo de la hoja.
2. Ponga el afilador cerca de la hoja.
3. Ponga el afilador abajo de la hoja y mueva el afilador atrás y adelante.
4. Repita afilando sobre el resto de las hojas.



Vea el afilador de la lima sobre la hoja. Muévalo atras y adelante.



Ahora, tome las dos limas con la línea verde y el afilador. Afile la lima, pruébela, y chequee conmigo.

Ya que hemos afilado los instrumentos, veamos lo mucho que Ud. recuerda:

1. a. Dibuje una hoja sin filo de un instrumento.

   b. Dibuje una hoja con filo de un instrumento.

2. ¿Cuáles son las dos pruebas que demuestran si el instrumento tiene filo?

   1) _____

   2) _____

3. ¿Como se ve la punta de la cucharilla si se ha afilado incorrectamente? (Dibujela.)

4. ¿Porque redondea las esquinas de los nuevos azadones?

   _____

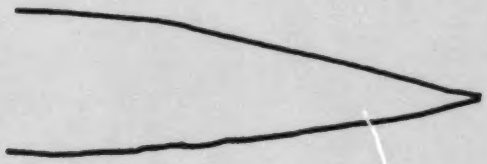
   _____

LAS RESPUESTAS

1. a.

   b.

2. Mirándolo y probándolo en la uña.

3. 

4. Las esquinas de los nuevos azadones se redondean para que las hojas filudas no lastimen las encías.

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BASIC PRINCIPLES OF INSTRUMENT SHARPENING

USING CHISELS AND SPOONS

By

Catherine Germano, RDH

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TITLE OF PACKAGE:	Basic Principles of Instrument Sharpening Using Chisels and Spoons
AUTHOR:	Cathy Germano
INSTITUTION:	Foothill Community College, Los Altos Hills, California
INTENDED STUDENTS:	Dental Assisting Students Dental Hygiene Students Dental Students
ESTIMATED WORKING TIME:	
MATERIALS NEEDED:	Model of a Sharpening Stone Enlarged model of a chisel and spoon Instruments Chisels 1 sharp 1 dull 1 correct bevel 1 too long of a bevel 1 too short of a bevel 1 with too many planes on the bevel Spoons 1 sharp 1 dull

FIELD TEST COPY

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INTRODUCTION

Sharpening instruments is one of the most difficult tasks to try to help you visualize. The instruments are very small and fingers, when used to point are too large to discriminate the fine parts of the instruments.

I hope that this module will help you transfer the principles of sharpening by the use of models to the actual instruments. You are not expected to sharpen the instruments in the kit. They are provided here as an instructional aid.

Also, as you are well aware, there are many different kinds of instruments and many techniques which can be used to sharpen. I concentrated on only two here. The main principles will <u>always</u> be the same through regardless of the instruments to be sharpened. These are:

- to conserve the instrument blade.
- and to preserve their original shape.

Remembering and applying these two principles to all instruments will make this a more universal module.

BASIC PRINCIPLES IN INSTRUMENT SHARPENING
USING DENTAL CHISELS AND SPOONS

Overall Objective

The students who complete this program will be able to list the principles of instrument sharpening and will be able to sharpen them correctly.

Sub-Objectives

1. List the reasons for sharp instruments.
2. Identify the different parts of the instruments by labeling a given illustration.
3. Distinguish between a sharp and a dull instrument by comparing them and selecting the correct one.
4. List the principle objectives of sharpening techniques.
5. Verbally state the method by which an instrument is applied to the sharpening stone.
6. Apply the instrument to the sharpening stone according to the criteria given and achieve a sharp edge by:
   a. Correct hand placement
   b. Correct placement of the cutting edge to be sharpened on stone
   c. Correct activation of the stroke
   d. Test the instrument for a sharp edge

EXERCISE #1

It is important to use sharp instruments for both the operator and the patient. Sharp instruments will help to conserve time and avoid operator fatigue, less pressure will need to be exerted in activati ng the stroke, it avoids trauma to the gingival tissues, and results in higher quality treatment.

1. List five reasons why it is important to use sharp instruments.

   1) _____

   2) _____

   3) _____

   4) _____

   5) _____

Here are the correct answers to Question #1.

1) Conserve time.

2) Avoid operator fatigue.

3) Less pressure will need to be exerted in activating the stroke.

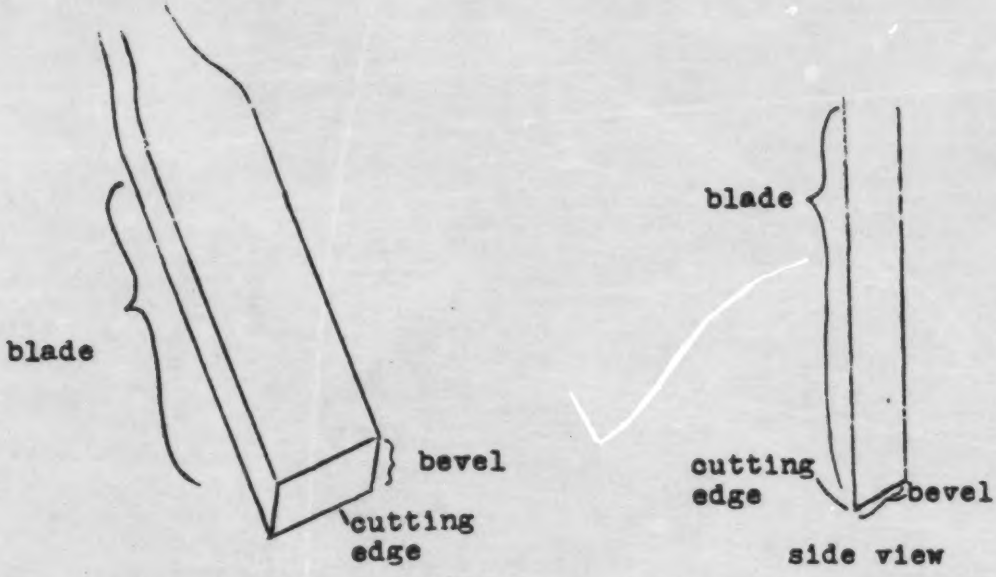
4) Avoids trauma to the gingival tissues.

5) Results in higher quality treatment.

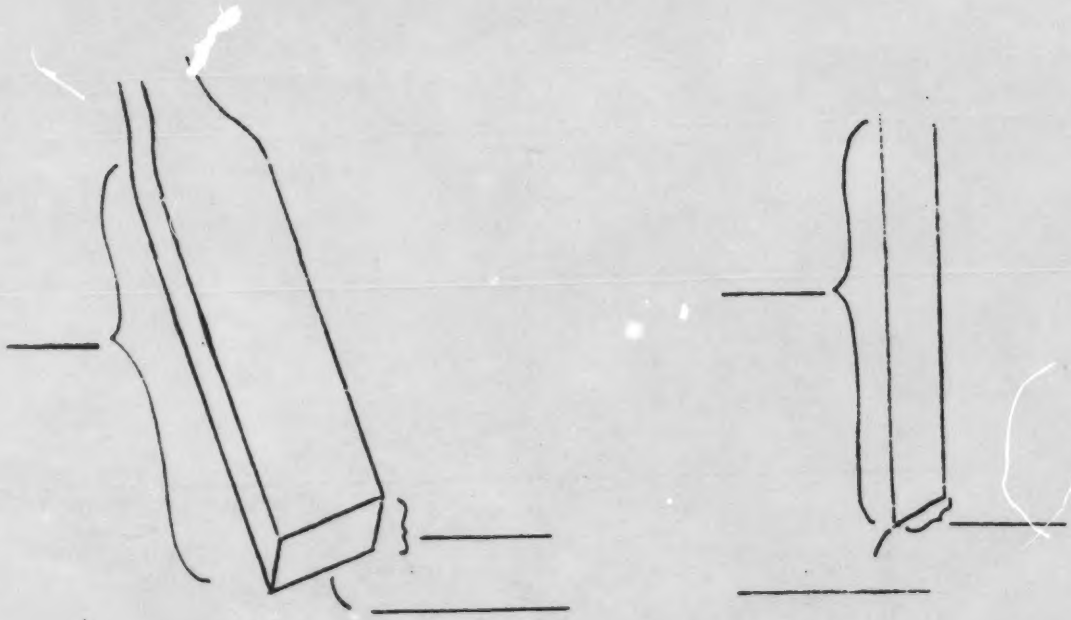
Good work!!!

EXERCISE #2

Here is a diagram of a chisel. (Specifically this is the straight chisel). You will learn the parts of the chisel. Although the gingival margin trimmers, binangle chisel, straight chisel, and angle formers are not pictured, these instruments have the same parts.

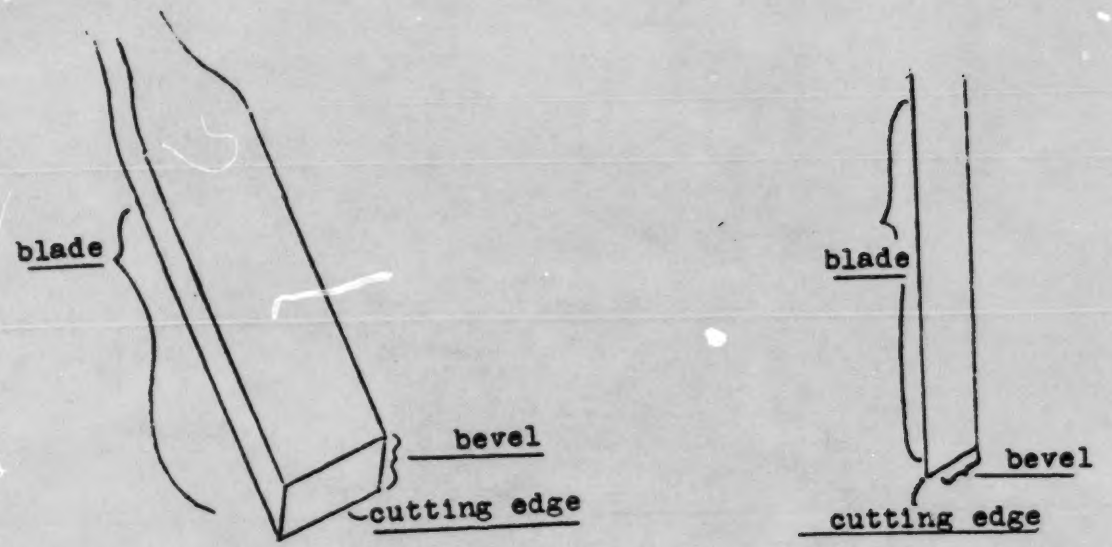


2A. Label the following illustration and check your answers.



Answer

2A.



If you answered in this manner you have done very well.

2B. Look at the model provided and identify by writing each of the parts.

A) _____

B) _____

C) _____

2B. You should have written the following answers:

A) Cutting edge

B) Bevel

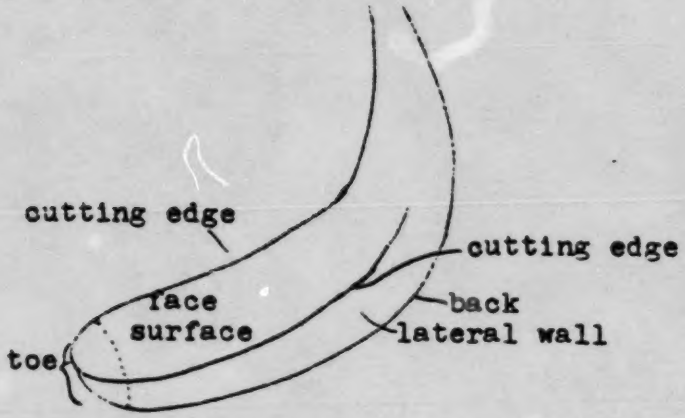
C) Blade

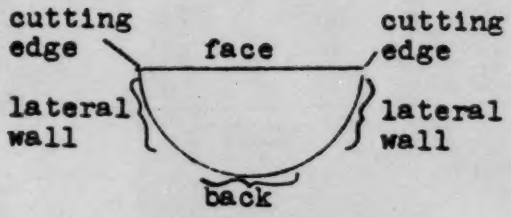
If you feel comfortable with this please continue.

Look at the straight chisel (Item #2) provided and familiarize yourself with each of the parts.

EXERCISE #3

Here is a diagram of a spoon. (Although only the spoon is used for illustration in this exercise, the same principle applies to the curet). Study the different parts of the spoon.

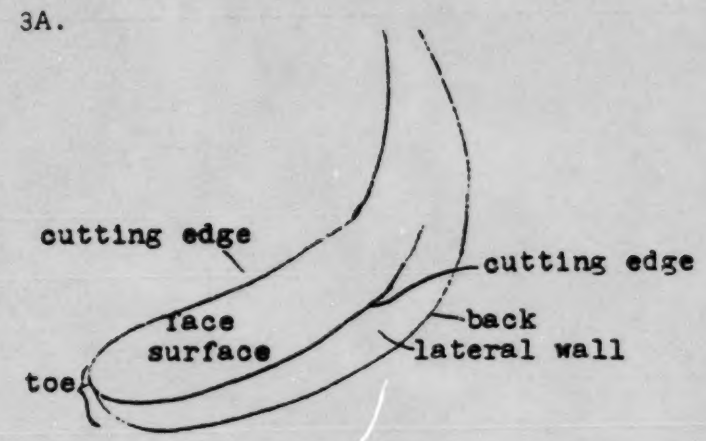


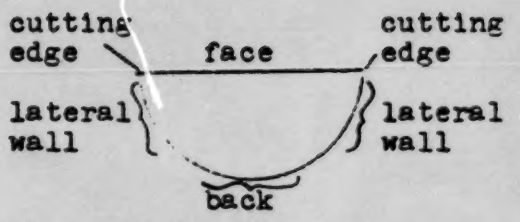


cross section

3A. On the following diagram label the various parts.

3A.





If this is how you answered you are proceding quite well.

3B. Now look at the model provided and identify by writing each of the parts.

A) _____

B) _____

C) _____

D) _____

3B. A) Face surface

B) Back

C) Cutting edge

D) Lateral walls

If you are comfortable with this please continue.

Look at the spoon provided with your kit (Item #1) and transfer this information provided to the instrument.

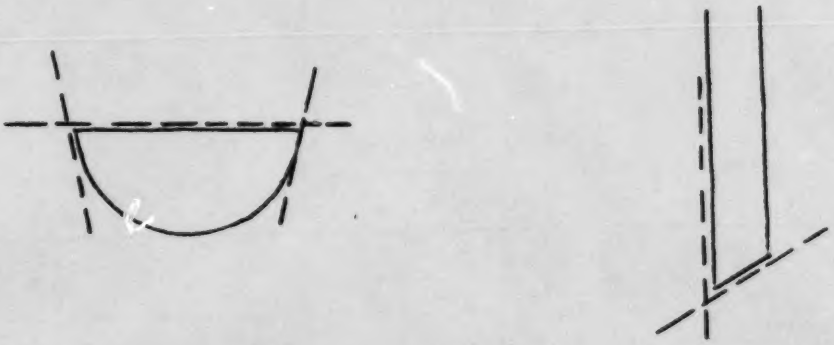
When you feel you have mastered this please continue.

EXERCISE #4

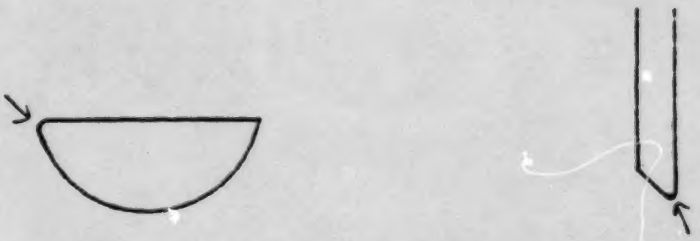
DETECTING A DULL EDGE

Now that you are familiar with the parts of the instruments - how can you tell when they are dull?

A sharp edge is formed by the intersection of two surfaces to form an angle.



A dull edge is a rounded junction of 2 surfaces.

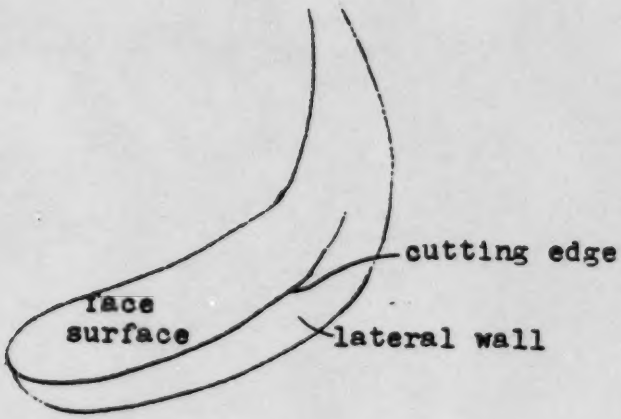


There are two methods which can be used to detect a dull edge.

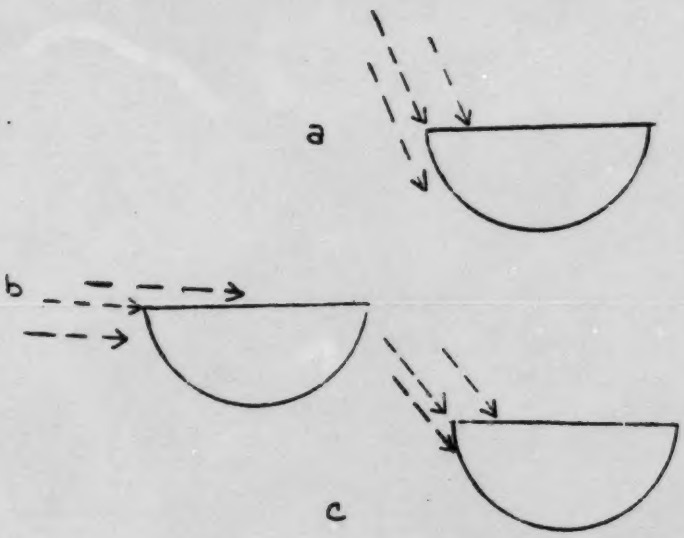
The Glare Test

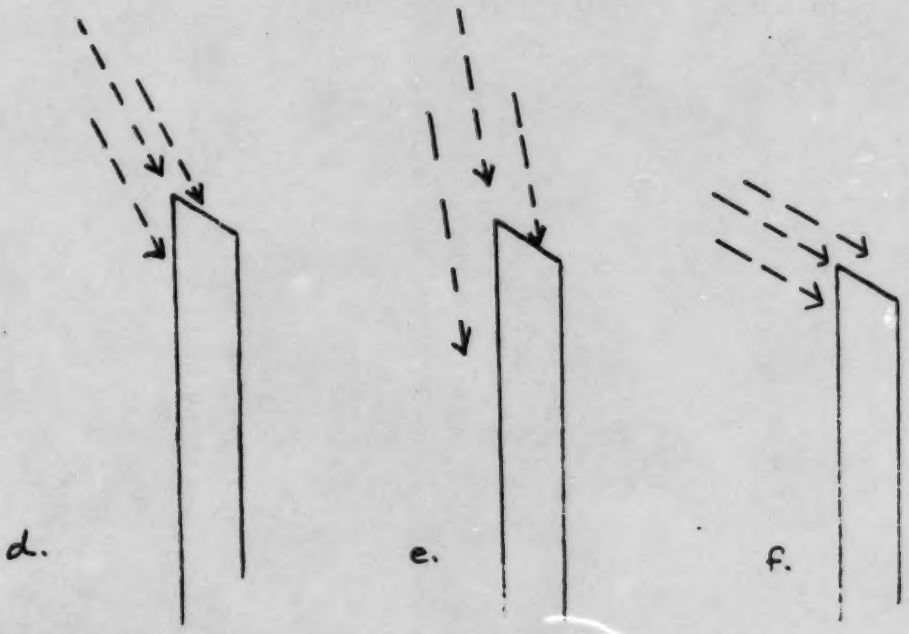
Hold the dull edge pointing toward you like an arrow. A dull edge acts like a mirror and reflects light. A sharp edge is not rounded and will not reflect light.

Be sure you can see part of the face and lateral wall as you look at the cutting edge.



4A. In the two groups which of the following shows the way to look for a dull edge?





Answers

4B. 5 is dull.

4 is sharp.

11 is sharp.

12 is dull.

If you were successful congratulations! If you had difficulty your instructor can help you.

The Thumbnail Test

A sharp cutting edge will readily "grab" the fingernail when lightly moved along the surface.

If the cutting edge is dull it will not grab.

4C. Take the instruments labeled 4, 5, 11, and 12 and test them.

5 _____ (grabs, does not grab), it is therefore _____ (sharp, dull).

4 _____, it is therefore _____.

11 _____, it is therefore _____.

12 _____, it is therefore _____.

Answers

4 does not grab, it is therefore dull.

5 grabs, it is therefore sharp.

11 grabs, it is therefore sharp.

12 does not grab, it is therefore dull.

EXERCISE #5

Two objectives for techniques of instrument sharpening are to conserve the instrument blades and to preserve their original shape.

5. List the two objectives for the techniques of sharpening.

1) _____

2) _____

Your answers should be:

1) Conserve the instrument blades.

2) Preserve their original shape.

EXERCISE #6

SHARPENING TECHNIQUES

There are many techniques which can be used to sharpen. We will be describing the manual technique.

Sharpening is a process of grinding away metal to remove the rounded junction between two surfaces. As you grind metal away you must take care to preserve the critical characteristics of the instrument.

The Chisel

In sharpening the chisel the Arkansas stone will be placed on a flat surface and the instrument will be moved.

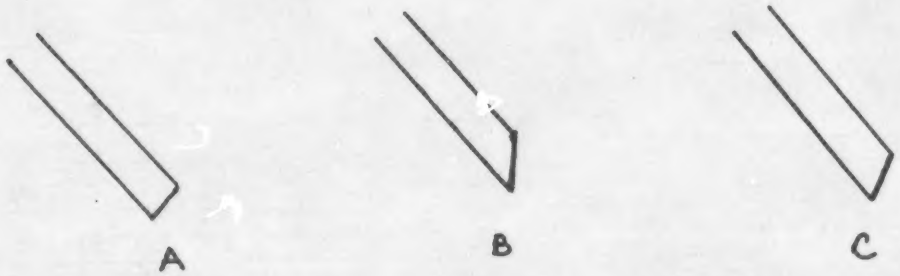
The bevel on the chisel is short and at an angle to the entire blade. When the chisel is sharpened this same angle must be restored.

too long too short correct

If it is too short the cutting edge will not grip the tooth structure properly.

If it is too long, the metal will be thin and flexible causing a weakened blade which can break and dull too rapidly.

6A. Which of the illustrations show the correct bevel length?



Answer

6A. You are correct if you chose C.

Continue on with B.

6B. Look at the instruments in your kit labeled 1, 2 and 3.

The bevel on 1 is _____

The bevel on 2 is _____

The bevel on 3 is _____

Answer

6B. The bevel on 1 is too long.

The bevel on 2 is correct.

The bevel on 3 is too short.

Continue with C and D.

6C. If the bevel is too short the cutting edge will not

_____

6D. If the bevel is too long the metal will be _____

_____

Answers

6C. If the bevel is too short the cutting edge will not grip the tooth structure properly.

6D. If the bevel is too long the metal will be thin and flexible causing a weakened blade which can break and dull too rapidly.

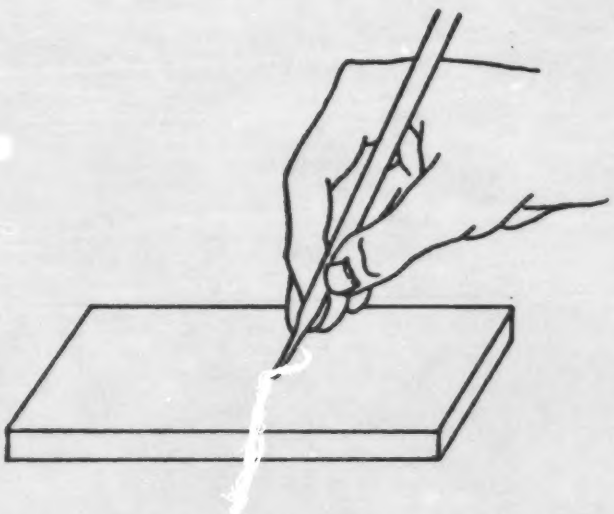
EXERCISE #7

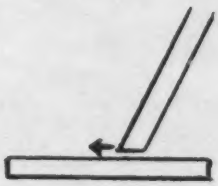
The chisel is held in the hand as though it were a pen.

The ring and little finger are placed directly on the stone as a constant guide during the stroke.

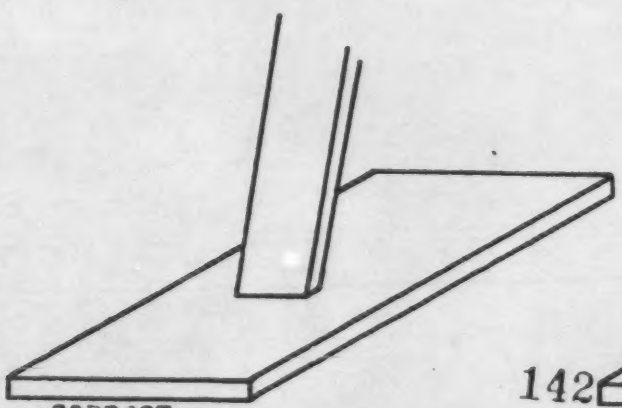
The bevel of the chisel is placed on the stone so that it is parallel with the flat part of the stone.

The cutting edge is the leading edge during the stroke.

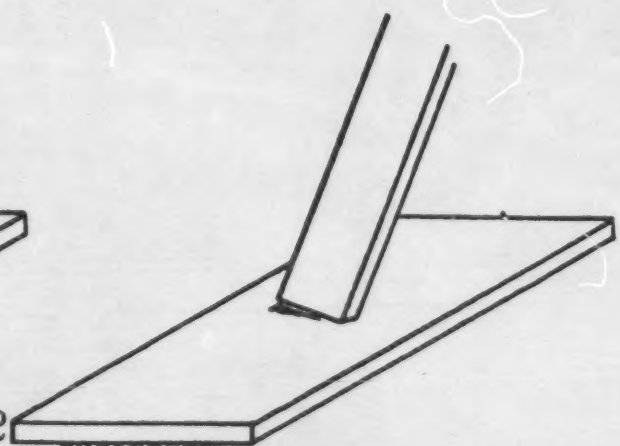




The cutting edge is also completely flat on the stone. It is <u>not</u> placed at an angle.

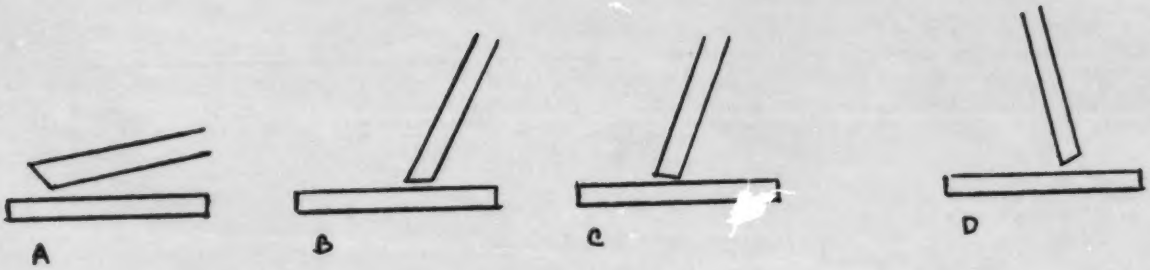


CORRECT



INCORRECT

7A. Which of the illustrations shows the incorrect placement?



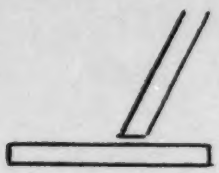
Answers

7A. You should have chosen a, c, and d as incorrect.

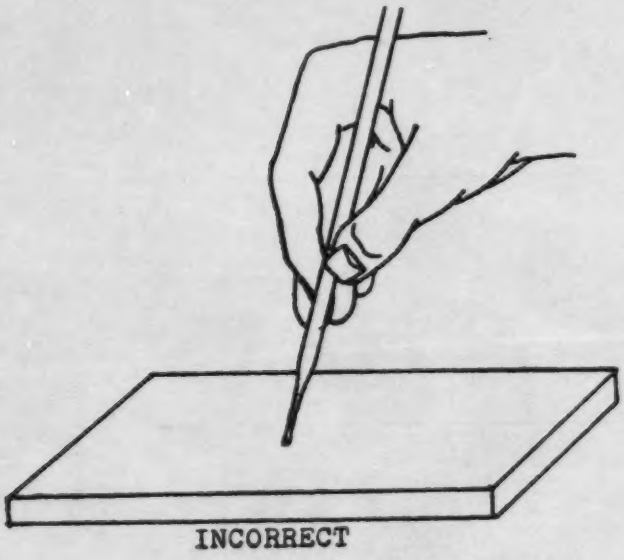
7B. Now use your sample stone and model chisel and apply the chisel to the stone.

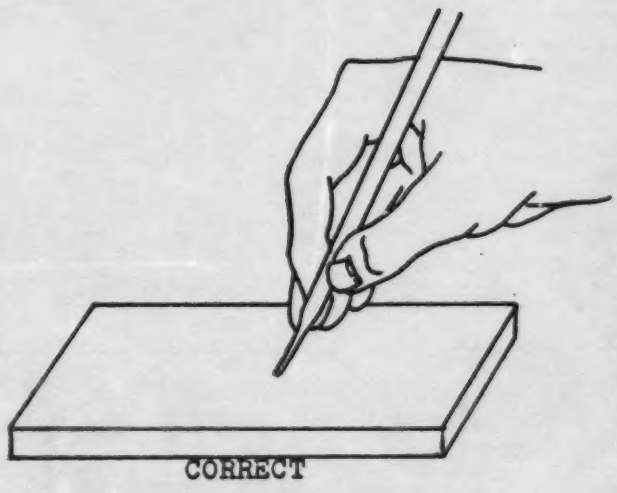
Check your positioning by looking at the next page.

7B. Is the bevel placed parallel to the flat part of the stone?

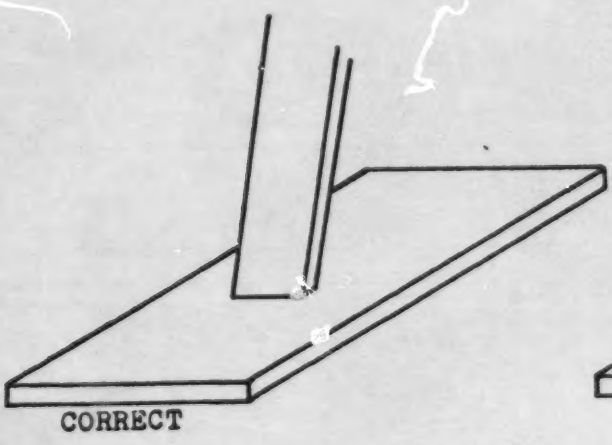


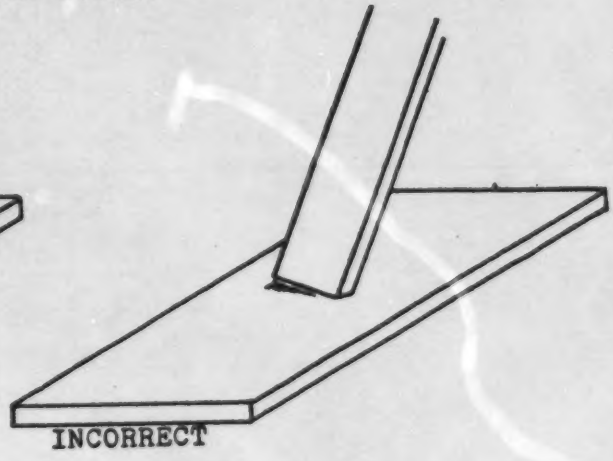
Are your little and ring fingers on the stone for support?





Is the entire cutting edge on the stone?

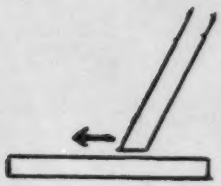




Were you successful with these three points? Congratulations!

EXERCISE #8

Now to activate the stroke. A push stroke is used. The cutting edge leads first.



The fingers and wrist are kept rigid and the entire forearm moves, applying moderate pressure against the stone. After a few strokes pick up the instrument and check the cutting edge using the Glare Test or the Thumbnail test. If the instrument were not yet sharp you would try again.

8A. The chisel is sharpened using a _____ stroke.
push
pull

8B. Wrist action is employed during the stroke. True or false

Answers

8A. The chisel is sharpened using a push stroke.

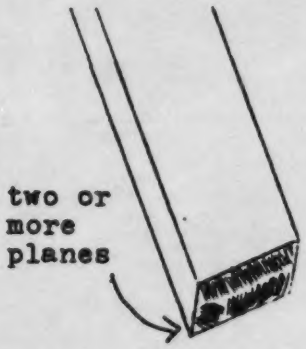
8B. The statement is false.

Wrist action is not used. The wrist and fingers are kept rigid. The entire forearm is used in activating the stroke.

EXERCISE #9

If the entire bevel has been kept flat against the stone there will be only one plane.

If the angle of the bevel was inadvertently changed as it was pushed across the stone it will cause several planes on the beveled surface. It will then look like this:



9A. Look at instruments labeled 2 and 5.
2 has _____ plane(s).

5 has _____ plane(s).

one
two or more planes

9B. 2 is _____ sharpened.

5 is _____ sharpened.

correctly
incorrectly

Answers

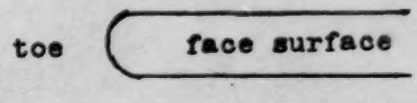
9A. 2 has one plane.
5 has two or more planes.

9B. 2 is correctly sharpened.
5 is incorrectly sharpened.

EXERCISE #10

The Spoon

As you recall the shape of the spoon differs from the chisel. Examine the model of the spoon in your kit along with these illustrations.

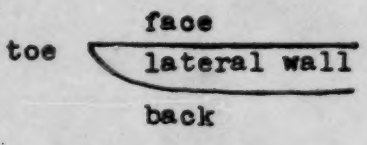


top view

Note that the lateral cutting edges are straight and parallel to each other and that the toe cutting edge is curved.

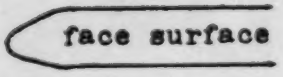
Both the toe and the two lateral cutting edges must be sharpened.

The lateral walls and back are also curved.



Keep in mind that the objective of sharpening is to conserve the instrument blade and to preserve its original shape.

10. This spoon has been sharpened incorrectly.



List two thing which are wrong with it.

1) _____

2) _____

Answers

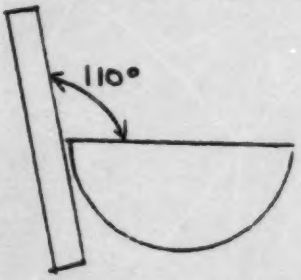
You should have answered as follows:

1) The lateral cutting edges are not parallel.

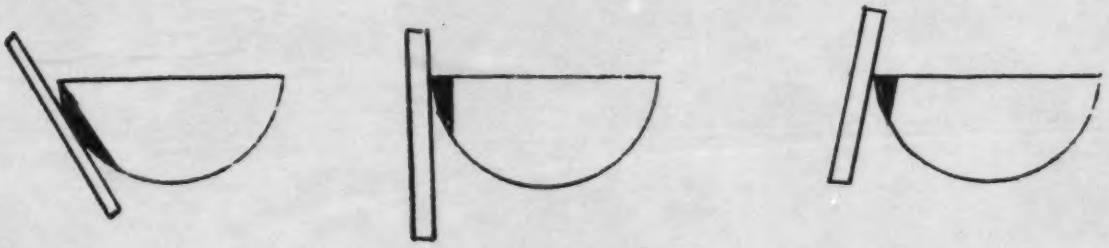
2) The tip has become pointed.

EXERCISE #11

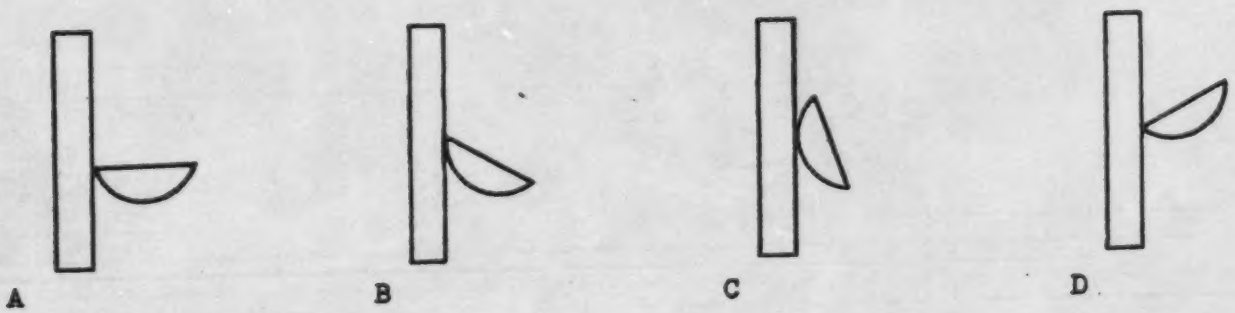
The angle of the cutting edge is 70-80°. The stone must therefore be held at approximately 110°.



With the stone held at an incorrect angle this will result:



11. Which of these diagrams illustrates the correct angle of the stone to the spoon?



Answers

11. B is correct

EXERCISE #12

With the spoon you will grind away part of the lateral wall and back.

If only part of the lateral wall is ground the original 70-80° angle will not be maintained.

12. Which of the following shows a correctly sharpened spoon?

A

B

C

Answer

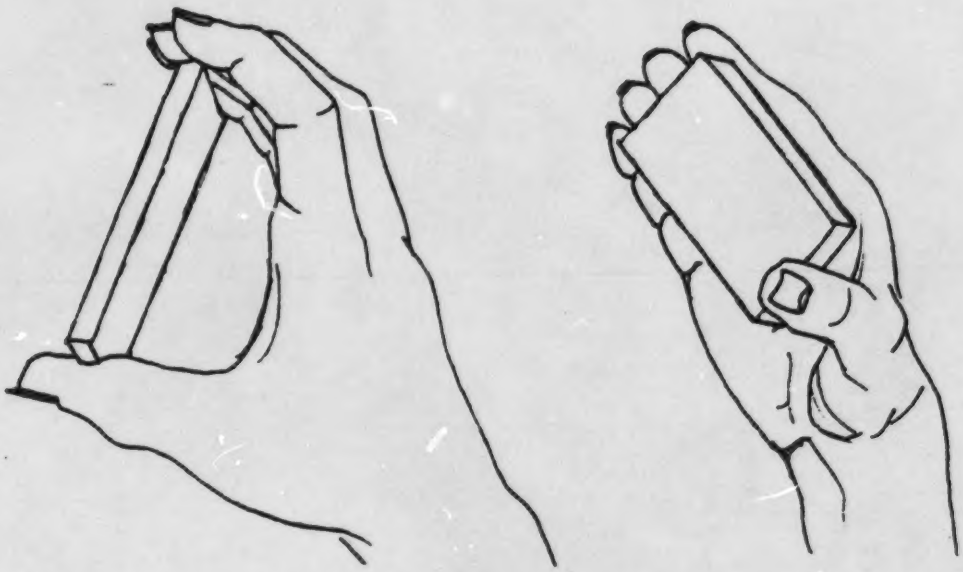
You should have answered C.

EXERCISE #13

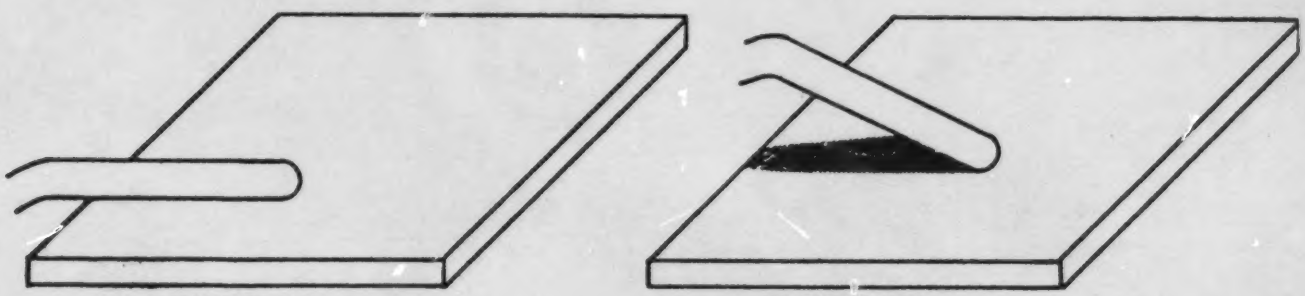
Activating the stroke

The spoon is held in the hand in a pen grasp. This time you will hold the sharpening stone in the other hand and move the stone.

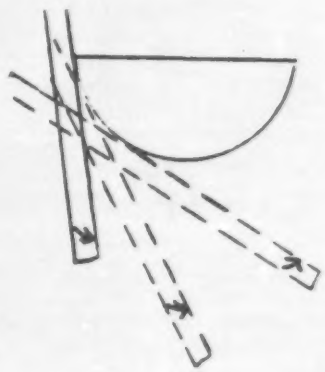
Hold it like this:



To maintain the original shape the entire lateral cutting edge must be applied flat against the stone:



Now, a pull stroke is used in that the stone is rotated in a curve from the lateral wall onto the back of the spoon.

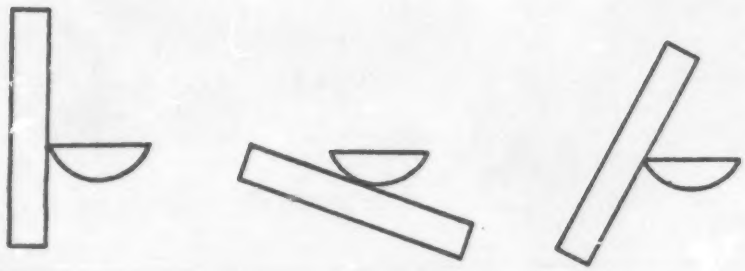


13A. Take your model spoon. Examine the cutting edge and lateral wall. Place the spoon against the stone. Examine the positioning. Check the next page to make sure you have done it correctly.

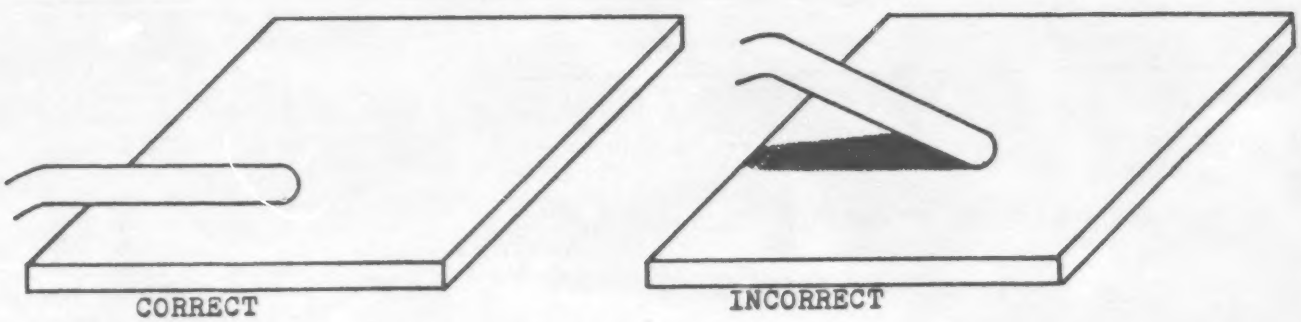
Answer

13A. The stone is approximately 110° to the cutting edge.

This is incorrect:



Then, the entire lateral cutting edge is flat against the stone:

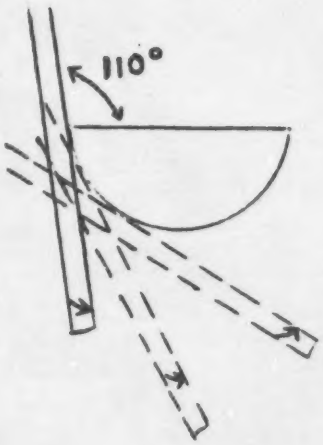


Congratulations
on your
placement!

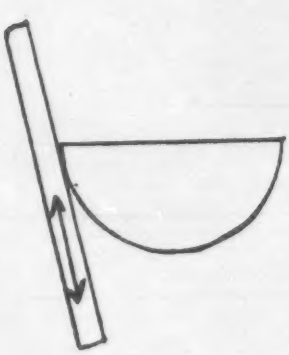
13B. Now, activate the stroke. Hold the instrument still and move the stone. Turn to the next page to see that you have done it correctly.

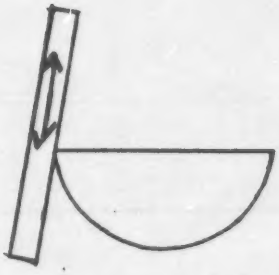
Answer

13B. Your stroke should have been like this:



and not this:



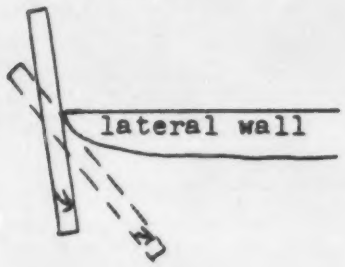


You then test the edge on your fingernail or by the glare method.

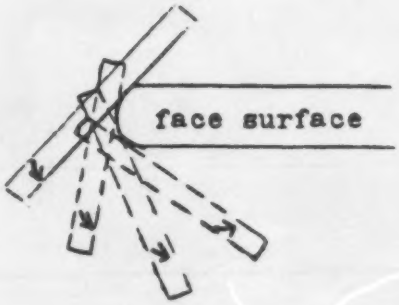
EXERCISE #14

The toe is sharpened in the same manner, except that the toe is a smooth round curve so you will need to "inch" your way around it sharpening it in sections.

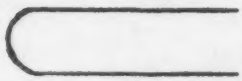
Side view

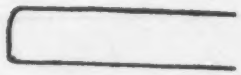


Top view



14A. Which of the following toes is sharpened correctly?

A 

B 

C

D

Answer

14A. A

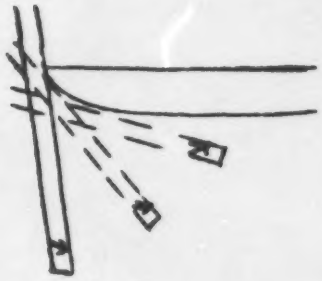
Continue with Exercise 14B.

14B. Try this procedure with your wooden spoon and stone.

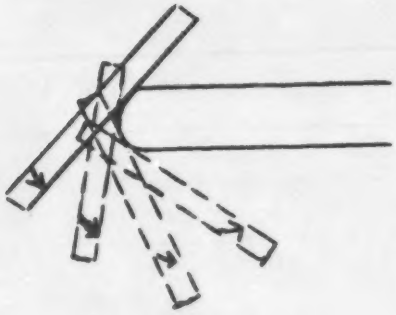
Turn to the next page for
assistance in positioning.

Answer

14B. Is the angle of the stone correct against the toe?



Are you "inching" your way around the toe?



Congratulations!

POST TEST

1. List the five advantages of sharp instruments.

   1) _____

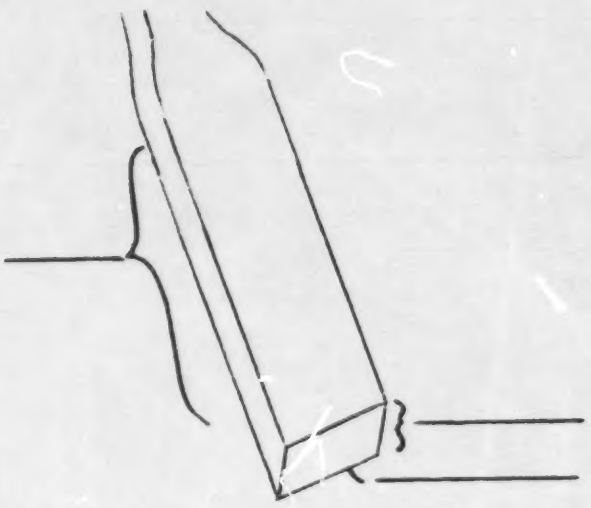
   2) _____

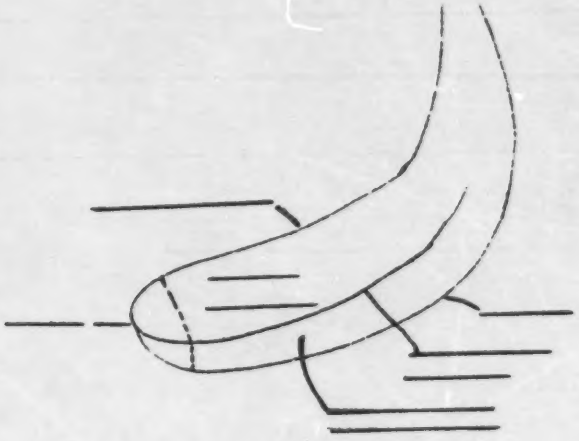
   3) _____

   4) _____

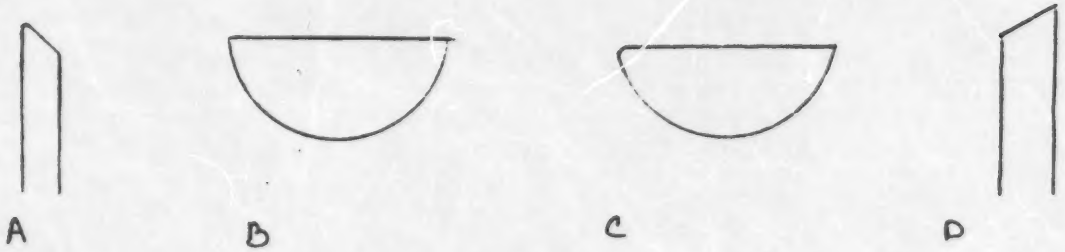
   5) _____

2. Name and label the parts of each instrument.

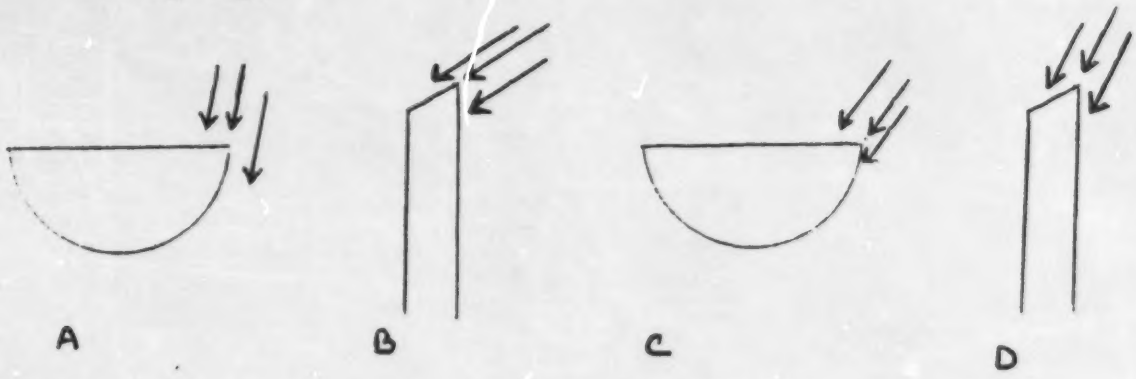




3. In the illustrations choose the two instruments with the dull cutting edge.



4. Using the glare test which two illustrations show the correct angle of vision you must use to determine dullness of the cutting edge?



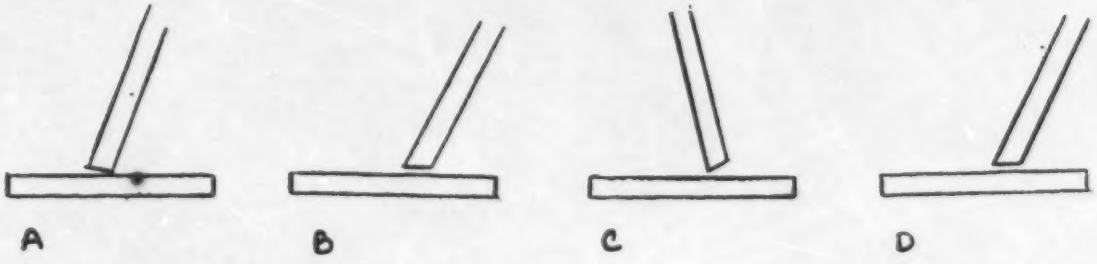
5. In applying the chisel to the Arkansas stone:

   a. The bevel must be placed perpendicular to the stone.

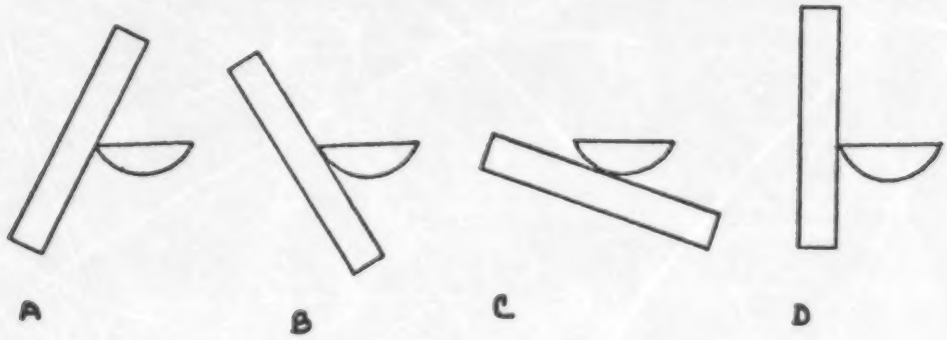
   b. The lateral wall must be placed parallel to the stone.

   c. The bevel must be placed parallel to the sharpening stone.

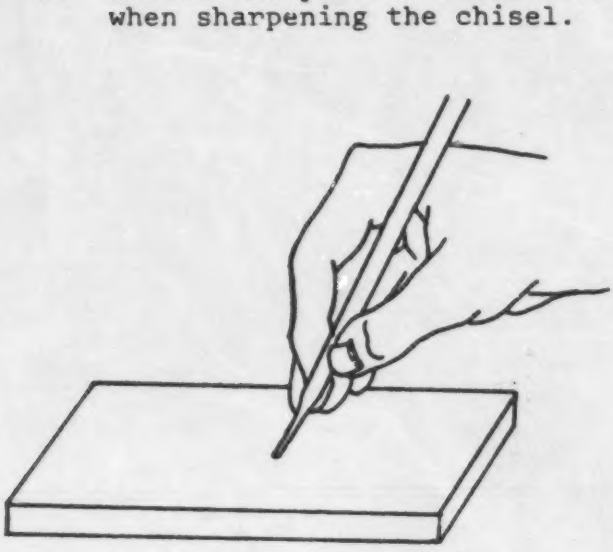
6. Which drawings demonstrates the correct placement of the chisel?



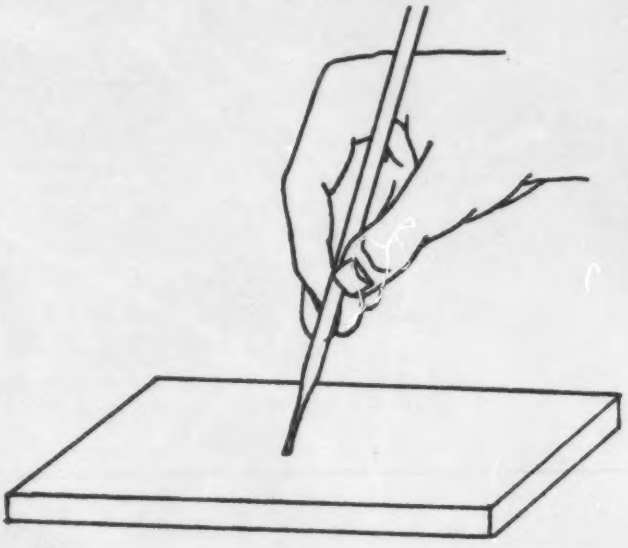
7. Which demonstrates the correct placement of the spoon?



8. Choose the picture illustrating the proper hand position when sharpening the chisel.

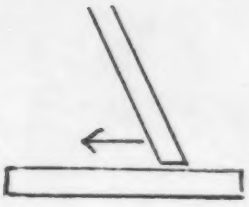


A

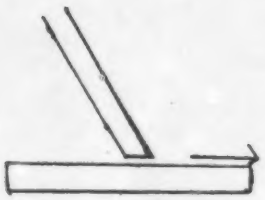


B

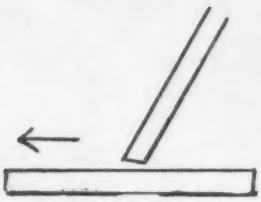
9. Which diagrams show the correct direction of the stroke?



A



B



C

10. Name the two techniques you can use to test for sharpness.

a. _____

b. _____

11. The angle formed between the flat surface of the stone and the face of the spoon is:

    a. 100°

    b. 70-80°

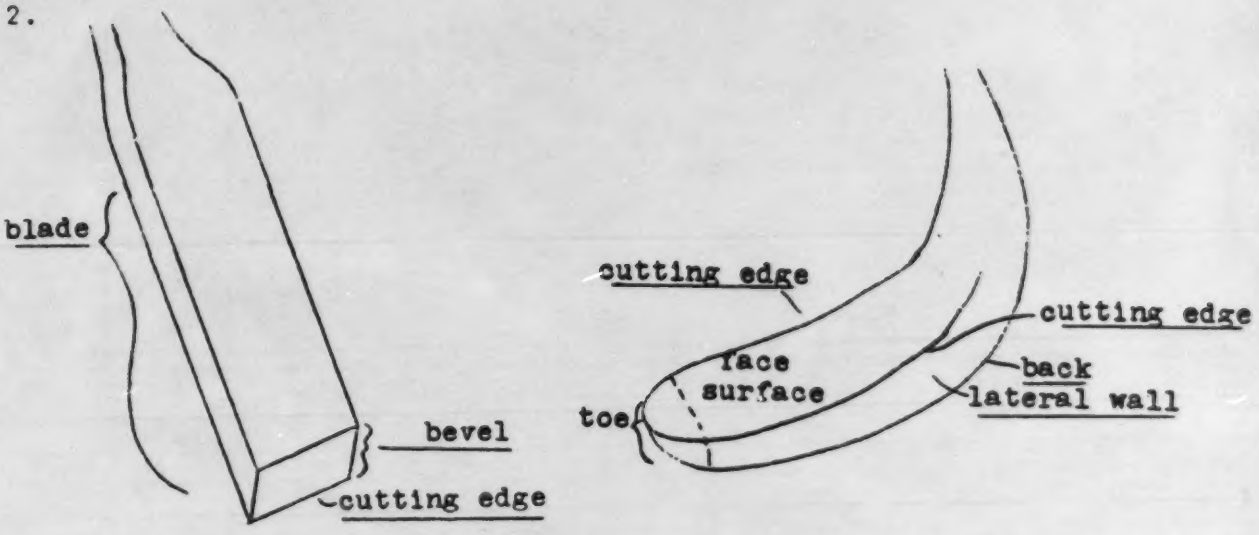
    c. 90°

    d. 110°

ANSWERS TO POST TEST

1. a. Conserve time
   b. Avoid operator fatigue
   c. Less pressure will need to be exerted when activating the stroke.
   d. Avoids trauma to the gingival tissues.
   e. Results in higher quality treatment.

2.



3. a and c

4. c and d

5. c

6. b and d

7. b

8. a

9. b and d

10. a. glare test
    b. thumbnail test

11. d

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